STIC Search Report
EIC 1700

STIC Database Tracking Number: 184278

TO: Charles Boyer
Location: REM 9A55
Art Unit : 1751
April 7, 2006

Case Serial Number: 10/649823

From: Ross Shipe
Location: EIC 1700
REMSEN 4B31
Phone: 571/272-6018
Ross.Shipe@uspto.gov

Search Notes

Examiner Boyer:

Please review the attached search results.

I got 29 hits with the structure on page 3 to the end.

If you have any questions or if you would like to refine the search query, please feel free to contact me at any time.

Thanks you for using EIC 1700 search services!

Ross Shipe (ASRC)
Technical Information Specialist

Access DB# 184278

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Charles Boyer Examiner #: 73868 Date: 4/5/06
Art Unit: 1751 Phone Number 30 12131 Serial Number: 10/649823
Mail Box and Bldg/Room Location: 9155 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: See attached

Inventors (please provide full names):

Earliest Priority Filing Date:

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search the claims. Any cas #'s would be great.

Thanks

****

STAFF USE ONLY

Searcher: BOS
Searcher Phone #:
Searcher Location:
Date Searcher Picked Up:
Date Completed: 4/07/06
Searcher Prep & Review Time: 30
Clerical Prep Time:
Online Time: 309

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#) 1
Bibliographic
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN ✓
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (8-01)

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Bib Data Sheet

CONFIRMATION NO. 6641

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/649,823	08/28/2003 RULE	510	1751	3811-0123P

APPLICANTS

Yi Yeol Lyu, Daejeon-Shi, KOREA, REPUBLIC OF;

Seok Chang, Daejeon-Shi, KOREA, REPUBLIC OF;
Ji Man Kim, Gyeonggi-Do, KOREA, REPUBLIC OF;Jae Geun Park, Daejeon-Shi, KOREA, REPUBLIC OF;

** CONTINUING DATA **********

** FOREIGN APPLICATIONS **********
REPUBLIC OF KOREA 2002-51065 08/28/2002
REPUBLIC OF KOREA 2002-71571 11/18/2002

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
** 11/25/2003

Foreign Priority claimed ☐ yes ☐ no 35 USC 119 (a-d) conditions met ☐ yes ☐ no ☐ Met after Allowance Verified and Acknowledged Examiner's Signature Initials	STATE OR COUNTRY KOREA, REPUBLIC OF	SHEETS DRAWING 16	TOTAL CLAIMS 11	INDEPENDENT CLAIMS 1	

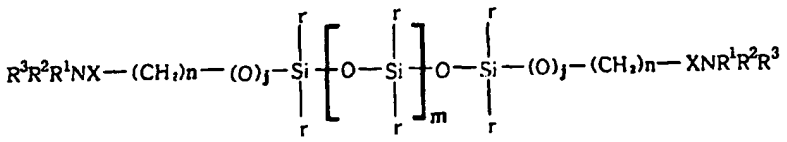
ADDRESS
30593
HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON , VA
20195

TITLE
Novel gemini surfactants and methods for preparing mesoporous materials using the same

☐ All Fees

WHAT IS CLAIMED IS:

1. A gemini surfactant represented by the following formula (1):

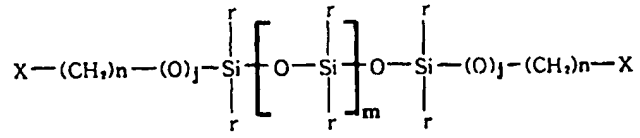


(1)

wherein each of R^1 and R^2 is independently methyl or ethyl group, R^3 is an alkyl group having 5 to 40 carbon atoms, X is a halogen atom, each of r is independently a hydrogen atom, methyl group or an alkoxy group having 1 to 10 carbon atoms, j is 0 or 1, m is an integer of from 0 to 10, and n is an integer of from 1 to 12.

2. A method of preparing the gemini surfactant according to claim 1, the method comprising the steps of:

mixing a compound represented by the following formula (2):



(2)

wherein X is a halogen atom, each of r is independently a hydrogen atom, methyl group or an alkyl group having 1 to 10 carbon atoms, j is 0 or 1, m is an integer of from 0 to 10 and n is an integer of from 1 to 12, and a compound represented by the following formula (3):

$R^3R^2R^1N$ (3)

wherein each of R^1 and R^2 is independently methyl or ethyl group, and R^3 is an alkyl group having 5 to 40 carbon atoms, in a molar ratio of 1:2~1:3; and

reacting the mixture in ethanol, acetonitrile, or toluene as a solvent at 30~120℃ for 1~100 hours.

3. A method for preparing a mesoporous material using the gemini surfactant according to claim 1 as a structure-directing agent.

4. The method according to claim 3, wherein the mesoporous material is prepared through the following steps:

(A) mixing an aqueous solution of the gemini surfactant with a precursor;

(B) adjusting pH of the mixture of step (A) using an acid or base;

(C) hydrothermally reacting the mixture of step (B);

(D) filtering, washing and drying the material obtained from step (C); and

(E) calcining the material obtained from the step (D).

5. The method according to claim 4, wherein in step (A) the aqueous solution is a basic solution containing 0.1~5.0% by weight of the gemini surfactant and 0.5~2.0% by weight of a

strong base, or an acidic solution containing 0.1~5.0% by eight of the gemini surfactant and 0.5~2.0% by weight of a strong acid.

6. The method according to claim 4, wherein in step (A) the precursor is one or more compounds selected from the group consisting of compounds represented by the following formulas (4) to (6):

$$R^4_jR^5_kMY_{4-j-k} \quad (4);$$

$$R^4_hR^5_pY_{3-h-p}M\text{-}Q\text{-}MY_{3-h-p}R^4_hR^5_p \quad (5); \text{ and}$$

$$M'(Y)_3 \quad (6),$$

wherein each of R^4 and R^5 is independently an alkyl group having 1 to 10 carbon atoms, Y is an alkoxy group having 1 to 5 carbon atoms, M is Si or Ti atom, M' is Al atom, Q is an alkylene group having 1 to 15 carbon atoms, or an arylene, an alkylarylene or an arylalkylene group, having 6 to 40 carbon atoms, each of j and k is independently an integer of from 0 to 3 provided that $0 \leq j + k \leq 3$, and each of h and p is independently an integer of from 0 to 2 provided that $0 \leq h + p \leq 2$.

7. The method according to claim 6, wherein the precursor is mixed in an amount of 1 to 100 moles per 1 mole of the gemini surfactant.

8. The method according to claim 4, wherein in step (C) the hydrothermal reaction is processed at 60~150℃ for 1 to 144 hours.

9. The method according to claim 4, wherein in step (D) the material obtained form step (C) is filtered, washed 2 to 5 times using distilled water, and dried at 50~200℃ for 3 to 30 hours.

10. The method according to claim 4, wherein in step (E) the material obtained from step (D) is calcined at 400~600℃ under nitrogen atmosphere for 0.5~30 hours.

11. The method according to claim 3, wherein the mesoporous material is prepared in the form of thin film through the following steps:

dissolving the gemini surfactant in a solvent selected form the group consisting of aromatic hydrocarbons, ketons, ethers, alcohols and mixtures thereof;

mixing a precursor aqueous solution to the solution;

coating the resulting solution to form a thin film; and

drying and calcining the thin film.

STIC Search Results Feedback Form

USPTO

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

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=> d his full

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     FILE 'HCAPLUS' ENTERED AT 10:04:44 ON 07 APR 2006
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                SEL RN

     FILE 'REGISTRY' ENTERED AT 10:05:51 ON 07 APR 2006
L3              9 SEA ABB=ON  PLU=ON  (11099-06-2/BI OR 112-75-4/BI OR
                  124-28-7/BI OR 2362-10-9/BI OR 663231-74-1/BI OR
                  663231-81-0/BI OR 663231-86-5/BI OR 663231-92-3/BI OR
                  663231-98-9/BI)

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L16               STRUCTURE

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                SAV L18 BOY823/A
L19           233 SEA ABB=ON  PLU=ON  112-75-4/CRN OR 124-28-7/CRN
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L21             0 SEA ABB=ON  PLU=ON  L19 AND L20

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L24          1142 SEA ABB=ON  PLU=ON  L22 AND ?SILOXAN?
L25             3 SEA ABB=ON  PLU=ON  L22 AND ?SILOXAN? AND GEMINI (2A)
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L26            16 SEA ABB=ON  PLU=ON  L22 AND ?SILOXAN? AND SURFACE
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L32            30 SEA ABB=ON  PLU=ON  L25 OR L26 OR L29 OR L31
L33            29 SEA ABB=ON  PLU=ON  L32 AND (1840-2003)/PRY,PY


=> file reg
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=> d l33 que stat
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                   OR 663231-98-9/BI)
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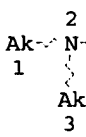

NODE ATTRIBUTES:
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CONNECT IS E3 RC AT 2
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CONNECT IS E1 RC AT 4
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X2 C AT 1
ECOUNT IS M1-X2 C AT 3

GRAPH ATTRIBUTES:
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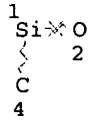
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L16 STR



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DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
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L22 5248 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L23 363 SEA FILE=HCAPLUS ABB=ON PLU=ON L18
L25 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND ?SILOXAN? AND GEMINI (2A) SURFACT?
L26 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND ?SILOXAN? AND SURFACE ACTIVE/SC,SX
L29 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 AND ?SILOXAN? AND SURFACT?
L31 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND ?SILOXAN? AND GEMINI
L32 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 OR L26 OR L29 OR L31
L33 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND (1840-2003)/PRY, PY

=> file hcaplus
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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

=> d l33 1-29 ibib abs hitstr hitind

L33 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:611026 HCAPLUS
DOCUMENT NUMBER: 143:117179
TITLE: Liquid laundry detergent compositions capable of improving handle after washing
INVENTOR(S): Toda, Masayuki
PATENT ASSIGNEE(S): Lion Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005187502	A2	20050714	JP 2003-427026	200312 24

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PRIORITY APPLN. INFO.: JP 2003-427026 200312 24

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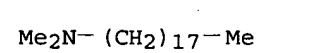
OTHER SOURCE(S): MARPAT 143:117179

AB The compns. comprise (A) nonionic surfactants, (B) tertiary amines having C8-28 hydrocarbon groups, which may be substituted or have linking group in the chain, and/or their salts, and (C) epoxy-contg. silicones in the wt. ratio of B/C 1-100 and show pH 4-8. Thus, an aq. compn. contg. BzONa 0.5, trisodium citrate 0.2, p-toluenesulfonic acid 5.0, dibutylhydroxytoluene 0.03, perfume 0.2, isothiazolone liq. 0.01, Acid Red 138 0.0003, polystyrene emulsion 0.2, C13H27O(EO)15H 20, C17H35CONH(CH2)3NMe2 1.2, and epoxy-polyether-modified di-Me **polysiloxane** (SF 8421) 0.2% at pH 7 showed good cleaning power and handle of garments washed with it.

IT **124-28-7**, Armeen DM 18D
RL: TEM (Technical or engineered material use); USES (Uses)
(liq. laundry detergent compns. with good cleaning power and softening effect)
RN 124-28-7 HCAPLUS
CN 1-Octadecanamine, N,N-dimethyl- (9CI) (CA INDEX NAME)



IC ICM C11D003-30
ICS C11D001-66; C11D003-37; C11D017-08
CC 46-5 (**Surface Active** Agents and Detergents)
IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me, epoxy-terminated, BY 16-855D; liq. laundry detergent compns. with good cleaning power and softening effect)
IT **Polysiloxanes**, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(di-Me, glycidylalkyl Me, hydroxyethyl Me, ethoxylated, SF 8421; liq. laundry detergent compns. with good cleaning power and softening effect)

IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(epoxy, SF 8411; liq. laundry detergent compns. with good cleaning power and softening effect)

IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-; liq. laundry detergent compns. with good cleaning power and softening effect)

IT Epoxy resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**polysiloxane**-, SF 8411; liq. laundry detergent compns. with good cleaning power and softening effect)

IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**polysiloxane**-; liq. laundry detergent compns. with good cleaning power and softening effect)

IT 75-21-8D, Oxirane, polymers with di-Me glycidylalkyl Me hydroxyethyl Me **siloxanes** 112-69-6, Armeen DM 16D **124-28-7**, Armeen DM 18D 25322-68-3D, Polyethylene glycol, monoalkyl ethers, optionally esters
RL: TEM (Technical or engineered material use); USES (Uses)
(liq. laundry detergent compns. with good cleaning power and softening effect)

L33 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:681491 HCAPLUS
DOCUMENT NUMBER: 141:194942
TITLE: Preparation of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair preparations
INVENTOR(S): Lange, Horst; Wagner, Roland; Kropfgans, Martin; Musiol, Sabine
PATENT ASSIGNEE(S): GE Bayer Silicones GmbH & Co. KG, Germany
SOURCE: PCT Int. Appl., 116 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004069137	A2	20040819	WO 2004-EP50091	20040206
			<--	
WO 2004069137	A3	20041021		

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI, NI, NO

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,

CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG,
CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10304923 A1 20040826 DE 2003-10304923 200302 07

PRIORITY APPLN. INFO.: DE 2003-10304923 A 200302 07 <--
DE 2003-10333375 A 200307 23 <--

AB The invention relates to the use of linear or cross-linked polyamino and/or polyammonium-**polysiloxane** copolymers comprising repeater units of formula: -[Q-V]- in the prodn. and/or treatment of dyed hair in addn. to compns. for the prodn. and/or treatment of dyed hair. The copolymers are used before, during or after hair dying; alos hair gels, styling products, and sprays are prepd. Thus PAR1 was prepd. from N,N, N',N'-tetramethyl-1,6-hexane diamine and Jeffamin ED 600 and stored as an aq. emulsion. A 43.5% of the prepd. silicone-contg. compn. was used in a hair shampoo as a 4.6 wt./wt.% component; other ingredients were (wt./wt.%): ammonium lauryl sulfate (26%) 24; ammonium laureth sulfate (28%) 14.3; cocoamidopropyl betaine (35%) 11.43; polyquaternium-10 0.5; water 54.17.

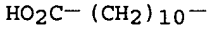
IT **740839-04-7P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

RN 740839-04-7 HCAPLUS

CN 1,6-Hexanediamine, N,N,N',N'-tetramethyl-, polymer with α-[dimethyl[3-(oxiranylmethoxy)propyl]silyl]-ω-[[dimethyl[3-(oxiranylmethoxy)propyl]silyl]oxy]poly[oxy(dimethylsilylene)] and methyloxirane polymer with oxirane bis(2-aminopropyl) ether, acetate (salt) dodecanoate (salt), compd. with N,N-dimethylmethanamine (9CI) .(CA INDEX NAME)

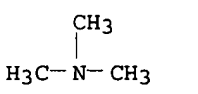
CM 1

CRN 143-07-7
CMF C12 H24 O2



CM 2

CRN 75-50-3
CMF C3 H9 N



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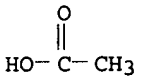
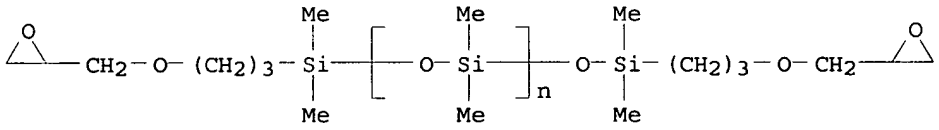


CM 4

CRN 398137-95-6
CMF (C10 H24 N2 . C3 H9 N O . 1/2 (C3 H6 O . C2 H4 O)x . (C2 H6 O Si)n C16 H34 O5 Si2)x
CCI PMS

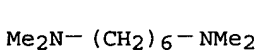
CM 5

CRN 130167-23-6
CMF (C2 H6 O Si)n C16 H34 O5 Si2
CCI PMS



CM 6

CRN 111-18-2
CMF C10 H24 N2

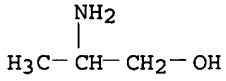


CM 7

CRN 65605-36-9
CMF C3 H9 N O . 1/2 (C3 H6 O . C2 H4 O)x

CM 8

CRN 6168-72-5
CMF C3 H9 N O

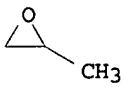


CM 9

CRN 9003-11-6
CMF (C3 H6 O . C2 H4 O)x
CCI PMS

CM 10

CRN 75-56-9
CMF C3 H6 O



CM 11

CRN 75-21-8
CMF C2 H4 O

IC ICM A61K
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 38
ST polyamino polyammonium **polysiloxane** copolymer hair prepn
IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(C16-18, ethoxylated; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT Coacervation
(agents; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT **Surfactants**
(amphoteric; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT **Surfactants**
(anionic; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT **Surfactants**
(cationic; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT Hair preparations
(conditioners; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT Hair preparations
(dyes, oxidative; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT Hair preparations
(dyes; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT Hair preparations
(fixatives; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT Hair preparations
(gels, styling; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)
IT **Surfactants**

(nonionic; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

IT Buffers
Hair preparations
Shampoos
Solvents
Thickening agents
(prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

IT **Polysiloxanes**, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

IT Polymers, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

IT Hair preparations
(sprays; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

IT 36574-66-0D, N-coco acyl derivs.
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(Cocoamidopropyl betaine; prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

IT 2235-54-3, Ammonium lauryl sulfate 32612-48-9, Ammonium laureth sulfate 36653-82-4, Cetyl alcohol 65497-29-2, Guar hydroxypropyltrimonium chloride 81859-24-7, Polyquaternium-10
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

IT 608530-63-8P 609340-85-4P 740815-32-1P **740839-04-7P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of polyamino and/or polyammonium-**polysiloxane** copolymers and use in hair prepns.)

L33 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:473374 HCAPLUS
DOCUMENT NUMBER: 141:24869
TITLE: Composition for preparing porous dielectric thin films, and film formation
INVENTOR(S): Lyu, Yi Yeol; Lee, Kwang Hee; Kim, Ji Man; Chang, Seok; Yim, Jin Heong; Park, Jae Geun
PATENT ASSIGNEE(S): S. Korea
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004110854	A1	20040610	US 2003-724732	200312 02
EP 1435369	A1	20040707	EP 2003-257179 <--	200311

13

<--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN 1511881 A 20040714 CN 2003-10124819 200312 03

<--

JP 2004200673 A2 20040715 JP 2003-404319 200312 03

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PRIORITY APPLN. INFO.: KR 2002-76275 A 200212 03

<--

OTHER SOURCE(S): MARPAT 141:24869

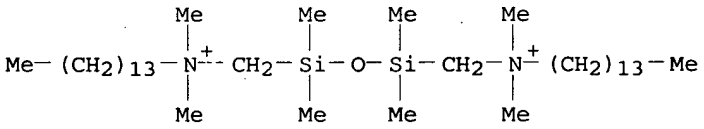
AB The compn. for prepg. porous dielec. thin films contains pore-generating material of **gemini** detergent, and/or a quaternary alkyl ammonium salt, their mixts. optionally a cyclodextrin deriv., a thermo-stable org. or inorg. matrix precursor, and solvent for dissolving the 2 solid components. Also, an interlayer insulating film having good mech. properties such as hardness, modulus and hydroscopicity is required for semiconductor devices. A porogen could be prepd. by condensing 100 mL acetonitrile soln. of 10.0 g bis(chloromethyl) **tetramethyldisiloxane** (A), and 21.4 g tetradecyldimethylamine (B) at A:B mole ratio 1:2.05 heated at 82°, for 24 h.

IT **663231-74-1 663231-86-5**

RL: TEM (Technical or engineered material use); USES (Uses) (porogen; porogen compn. for prepg. porous dielec. thin films for semiconductor devices)

RN 663231-74-1 HCAPLUS

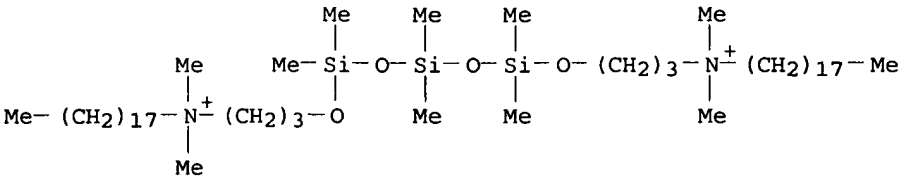
CN 1-Tetradecanaminium, N,N'-[(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis(methylene)]bis[N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)



●2 Cl⁻

RN 663231-86-5 HCAPLUS

CN 4,6,8,10-Tetraoxa-14-azonia-5,7,9-trisiladotriacontan-1-aminium, N,N,5,5,7,7,9,9,14,14-decamethyl-N-octadecyl-, dibromide (9CI) (CA INDEX NAME)



●2 Br^-

IC ICM C08J009-00
INCL 521082000; 521084100; 521086000
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
ST **gemini surfactant** porogen dielec thin film; quaternary ammonium salt porogen dielec thin film; semiconductor insulator dielec thin film
IT **Polysiloxanes**, uses
Quaternary ammonium compounds, uses
Silsesquioxanes
RL: TEM (Technical or engineered material use); USES (Uses)
(porogen; porogen compn. for prepg. porous dielec. thin films for semiconductor devices)
IT 2554-06-5, 2,4,6,8-Tetramethyl-2,4,6,8-**tetravinylcyclotetrasiloxane** 10025-78-2, Trichlorosilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(porogen compn. for prepg. porous dielec. thin films for semiconductor devices)
IT 64-20-0, Tetramethylammonium bromide 71-91-0, Tetraethylammonium bromide 866-97-7, Tetrapentylammonium bromide 1643-19-2, Tetrabutylammonium bromide 1941-30-6, Tetrapropylammonium bromide 2390-68-3, Didecyldimethylammonium bromide 3026-69-5, Dioctyldimethylammonium bromide 4328-13-6, Tetrahexylammonium bromide 4368-51-8, Tetraheptylammonium bromide 14866-33-2, Tetraoctylammonium bromide 20109-38-0, Diethyldimethylammonium bromide 52509-52-1 55216-11-0 63462-99-7, Tetraoctadecylammonium bromide 115984-63-9, Dibutyldimethylammonium bromide 139653-55-7, Tetrahexadecylammonium bromide 187731-22-2, Diheptyldimethylammonium bromide 214596-44-8, Dihexyldimethylammonium bromide **663231-74-1** **663231-86-5** 700380-89-8
RL: TEM (Technical or engineered material use); USES (Uses)
(porogen; porogen compn. for prepg. porous dielec. thin films for semiconductor devices)

L33 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:181803 HCAPLUS
DOCUMENT NUMBER: 140:201475
TITLE: **Gemini surfactants** and method for preparing mesoporous materials
INVENTOR(S): Lyu, Yi Yeol; Chang, Seok; Park, Jae Geun; Kim, Ji Man
PATENT ASSIGNEE(S): Samsung Electronics Co., Ltd., S. Korea
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1394165	A1	20040303	EP 2003-255188	20030821
EP 1394165	B1	20051019		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004090000	A2	20040325	JP 2003-302316	20030827
CN 1486780	A	20040407	CN 2003-155333	20030827
US 2004138087	A1	20040715	US 2003-649823	20030828
PRIORITY APPLN. INFO.:			KR 2002-51065 A	20020828
			KR 2002-71571 A	20021118

OTHER SOURCE(S): MARPAT 140:201475

AB Disclosed herein are a **siloxane**-based **gemini surfactant** and a method for prepg. a mesoporous material using the **gemini surfactant.** The method for prepg. a mesoporous material uses the novel **gemini surfactant** as a structure-directing agent to provide a mesoporous material has a pore size of 10 nm or less with uniform pore size distribution.

IT **11099-06-2P**, TEOS homopolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(**gemini surfactants** and method for prepg. mesoporous materials)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IT **112-75-4**, Tetradecyldimethylamine **124-28-7**, Octadecyldimethylamine **2362-10-9 663231-81-0 663231-92-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**gemini surfactants** and method for prepg. mesoporous materials)

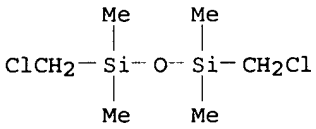
RN 112-75-4 HCAPLUS
CN 1-Tetradecanamine, N,N-dimethyl- (9CI) (CA INDEX NAME)

$Me_2N-(CH_2)_{13}-Me$

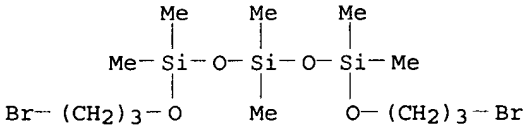
RN 124-28-7 HCAPLUS
CN 1-Octadecanamine, N,N-dimethyl- (9CI) (CA INDEX NAME)

$Me_2N-(CH_2)_{17}-Me$

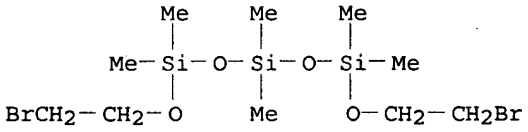
RN 2362-10-9 HCAPLUS
CN Disiloxane, 1,3-bis(chloromethyl)-1,1,3,3-tetramethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



RN 663231-81-0 HCAPLUS
CN Trisiloxane, 1,5-bis(3-bromopropoxy)-1,1,3,3,5,5-hexamethyl- (9CI) (CA INDEX NAME)



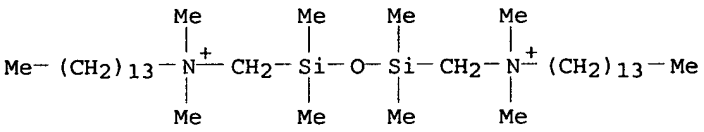
RN 663231-92-3 HCAPLUS
CN Trisiloxane, 1,5-bis(2-bromoethoxy)-1,1,3,3,5,5-hexamethyl- (9CI) (CA INDEX NAME)



IT **663231-74-1P 663231-86-5P 663231-98-9P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered

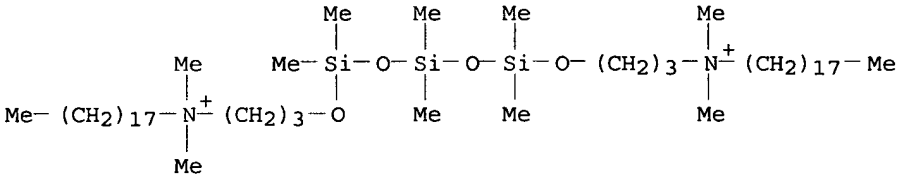
material use); PREP (Preparation); USES (Uses)
(**surfactant; gemini surfactants** and
method for prepg. mesoporous materials)

RN 663231-74-1 HCAPLUS
CN 1-Tetradecanaminium, N,N'-[(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis(methylene)]bis[N,N-dimethyl-, dichloride (9CI) (CA INDEX NAME)



●2 Cl^-

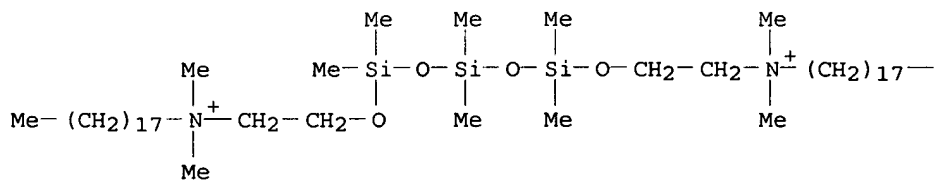
RN 663231-86-5 HCAPLUS
CN 4,6,8,10-Tetraoxa-14-azonia-5,7,9-trisiladotriacontan-1-aminium, N,N,5,5,7,7,9,9,14,14-decamethyl-N-octadecyl-, dibromide (9CI) (CA INDEX NAME)



●2 Br^-

RN 663231-98-9 HCAPLUS
CN 3,5,7,9-Tetraoxa-12-azonia-4,6,8-trisilatriacontan-1-aminium, N,N,4,4,6,6,8,8,12,12-decamethyl-N-octadecyl-, dibromide (9CI) (CA INDEX NAME)

PAGE 1-A



●2 Br^-

PAGE 1-B

— Me

IC ICM C07F007-08
CC 46-1 (**Surface Active** Agents and Detergents)
ST **siloxane gemini surfactant** mesoporous material
IT **Surfactants**
(**gemini; gemini surfactants** and method for prepg. mesoporous materials)
IT Porous materials
(mesoporous; **gemini surfactants** and method for prepg. mesoporous materials)
IT **11099-06-2P**, TEOS homopolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(**gemini surfactants** and method for prepg. mesoporous materials)
IT **112-75-4**, Tetradecyldimethylamine **124-28-7**, Octadecyldimethylamine **2362-10-9 663231-81-0 663231-92-3**
RL: RCT (Reactant); RACT (Reactant or reagent)
(**gemini surfactants** and method for prepg. mesoporous materials)
IT **663231-74-1P 663231-86-5P 663231-98-9P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**surfactant; gemini surfactants** and method for prepg. mesoporous materials)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:1007095 HCAPLUS
DOCUMENT NUMBER: 140:43790
TITLE: Silicone emulsion enzyme systems, multiphase systems, and detergent use
INVENTOR(S): Becker, Nathaniel T.; Brecht, Doris Jean; Christiano, Steven Patrick; Elms, Russel Allen; Feng, Qian Jane; Hayes, Keith Quentin, II; Heng, Meng H.; Mazeaud, Isabelle; Severance, Martin Kent
PATENT ASSIGNEE(S): Dow Corning Corporation, USA; Genencor International, Inc.
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106607	A1	20031224	WO 2003-US18943	20030617

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003276412 A1 20031231 AU 2003-276412 200306 17
<--
PRIORITY APPLN. INFO.: US 2002-389655P P 200206 17
<--
WO 2003-US18943 W 200306 17
<--

AB The silicone materials are used to form an emulsion to protect active ingredients such as granular enzymes in liq. formulations during storage. A multiple-emulsion enzyme system comprises an inner aq. phase contg. an enzyme, an outer phase of a silicone fluid, a continuous phase surrounding the outer phase, and surfactants. Also, a suspension-emulsion enzyme system comprises a silicone fluid contg. a solid enzyme dispersion without an aq. soln. intervening between the enzyme and the silicone fluid, dispersing agent that disperses the enzyme in the silicone fluid, a continuous phase surrounding the silicone fluid, and a silicone surfactant.

IT **11099-06-2**
RL: TEM (Technical or engineered material use); USES (Uses)
(silicone emulsion encapsulated enzyme systems for detergent use)
RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM C11D001-66
ICS C11D003-20; C11D003-43; C11D003-44; C11D003-37
CC 46-5 (**Surface Active** Agents and Detergents)
IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)

(polyoxyalkylene-; silicone emulsion encapsulated enzyme systems for detergent use)

IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**polysiloxane**-; silicone emulsion encapsulated enzyme systems for detergent use)

IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(propoxylated, encapsulant/coating; silicone emulsion encapsulated enzyme systems for detergent use)

IT 9000-92-4, Amylase 9001-05-2, Catalase 9001-62-1, Lipase 9003-11-6D, vinyl-terminated 9003-99-0, Peroxidase 9012-54-8, Cellulase 9014-01-1, Subtilisin 9032-75-1, Pectinase **11099-06-2** 31692-79-2 31900-57-9D, trimethylsilyl-terminated 42613-30-9, Ligninase 59942-04-0D, polymer with **polysiloxane** 60748-69-8, Mannanase 156118-35-3D, trimethylsilyl-terminated 179128-52-0
RL: TEM (Technical or engineered material use); USES (Uses)
(silicone emulsion encapsulated enzyme systems for detergent use)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:460528 HCAPLUS
DOCUMENT NUMBER: 139:41418
TITLE: Hair cosmetics containing **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers
INVENTOR(S): Omura, Takayuki; Shida, Tomotaka; Nanba, Tomiyuki
PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003171245	A2	20030617	JP 2001-369628	20011204
JP 3701233	B2	20050928		

PRIORITY APPLN. INFO.: JP 2001-369628 20011204

AB The cosmetics contain (a) amphoteric polyurethanes having side chains contg. units from R1C(R2OH)(R3OH)R4OR5SiR6R7(OSiR8R9)mR10 (I; R1 = C1-24 alkyl; R2-R4 = C1-3 alkylene; R5 = C3-5 alkylene; R6-R9 = C1-20 alkyl; R10 = Me, Et; m = 1-200) and/or **polysiloxanes** supported on amphoteric polyurethanes and (b) composites of amphoteric and/or semipolar **surfactants** with higher fatty acids and/or (c) alkyl-modified carboxyvinyl polymers. The cosmetics show good hair-setting effect and provide natural hair texture. A styling mousse was prepd. from **octamethylcyclotetrasiloxane** 10.0, di-Me **polysiloxane** 5.0, isostearic acid EX 0.8, propylene glycol

3.0, Lebon 2000 2.0, IPDI-polyester polyol-I (R1 = Et, R2-R4 = CH2, R5 = C3H6, R6-R10 = Me)-dimethylolbutanoic acid-N-methyldiethanolamine copolymer Et3N salt dispersion 10.0, EtOH 10.0, H2O to 100 wt.%, and propellants.

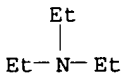
IT **541548-50-9P 541548-51-0P 541548-53-2P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(comprised of actual and assumed monomers; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

RN 541548-50-9 HCAPLUS

CN Hexanedioic acid, polymer with bis(hydroxymethyl)butanoic acid, α-[[3-[2,2-bis(hydroxymethyl)butoxy]propyl]dimethylsilyl]-ω-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2,2'-(methylimino)bis[ethanol], block, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

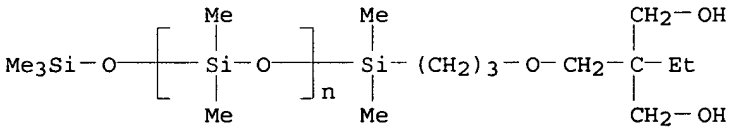


CM 2

CRN 390756-44-2
CMF (C12 H18 N2 O2 . C6 H14 O2 . C6 H12 O4 . C6 H10 O4 . C5 H13 N O2 . (C2 H6 O Si)n C14 H34 O4 Si2)x
CCI PMS

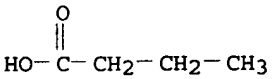
CM 3

CRN 128147-46-6
CMF (C2 H6 O Si)n C14 H34 O4 Si2
CCI PMS



CM 4

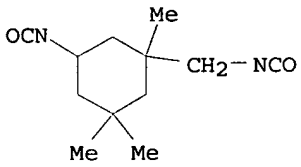
CRN 56743-27-2
CMF C6 H12 O4
CCI IDS



2 [D1—CH_2—OH]

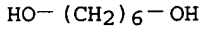
CM 5

CRN 4098-71-9
CMF C12 H18 N2 O2



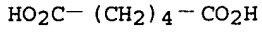
CM 6

CRN 629-11-8
CMF C6 H14 O2



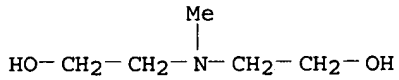
CM 7

CRN 124-04-9
CMF C6 H10 O4



CM 8

CRN 105-59-9
CMF C5 H13 N O2

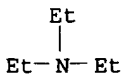


RN 541548-51-0 HCAPLUS
CN Hexanedioic acid, polymer with bis(hydroxymethyl)butanoic acid, α-[[3-[[2,2-bis(hydroxymethyl)undecyl]oxy]propyl]dimethylsilyl]-ω-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)],

1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2,2'-(methylimino)bis[ethanol], block, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

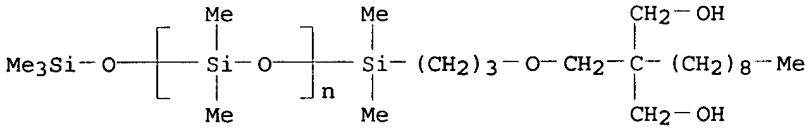


CM 2

CRN 390756-46-4
CMF (C12 H18 N2 O2 . C6 H14 O2 . C6 H12 O4 . C6 H10 O4 . C5 H13 N O2 . (C2 H6 O Si)n C21 H48 O4 Si2)x
CCI PMS

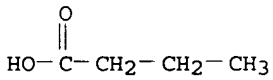
CM 3

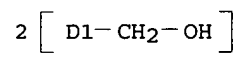
CRN 390756-45-3
CMF (C2 H6 O Si)n C21 H48 O4 Si2
CCI PMS



CM 4

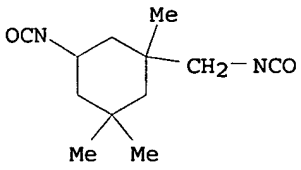
CRN 56743-27-2
CMF C6 H12 O4
CCI IDS





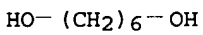
CM 5

CRN 4098-71-9
CMF C12 H18 N2 O2



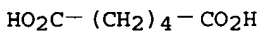
CM 6

CRN 629-11-8
CMF C6 H14 O2



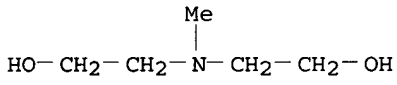
CM 7

CRN 124-04-9
CMF C6 H10 O4



CM 8

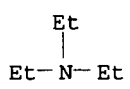
CRN 105-59-9
CMF C5 H13 N O2



RN 541548-53-2 HCAPLUS
CN Hexanedioic acid, polymer with bis(hydroxymethyl)butanoic acid, α-[[3-[2,2-bis(hydroxymethyl)butoxy]propyl]dimethylsilyl]-ω-[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 1,6-hexanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2,2'-(methylimino)bis[ethanol], compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

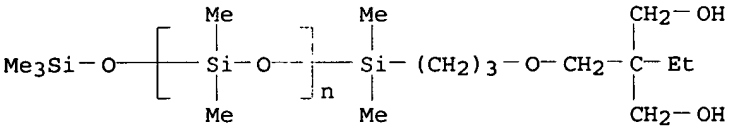


CM 2

CRN 541548-52-1
CMF (C12 H18 N2 O2 . C6 H14 O3 . C6 H14 O2 . C6 H12 O4 . C6 H10 O4 . C5 H13 N O2 . (C2 H6 O Si)n C14 H34 O4 Si2)x
CCI PMS

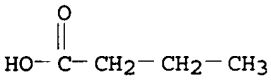
CM 3

CRN 128147-46-6
CMF (C2 H6 O Si)n C14 H34 O4 Si2
CCI PMS



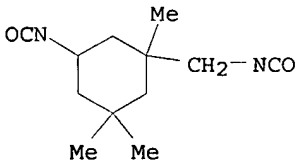
CM 4

CRN 56743-27-2
CMF C6 H12 O4
CCI IDS



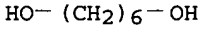
CM 5

CRN 4098-71-9
CMF C12 H18 N2 O2



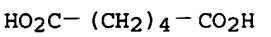
CM 6

CRN 629-11-8
CMF C6 H14 O2



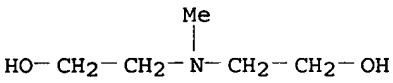
CM 7

CRN 124-04-9
CMF C6 H10 O4



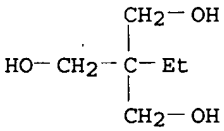
CM 8

CRN 105-59-9
CMF C5 H13 N O2



CM 9

CRN 77-99-6
CMF C6 H14 O3



IC ICM A61K007-11
CC 62-3 (Essential Oils and Cosmetics)
ST hair cosmetic **polysiloxane** polyurethane amphoteric **surfactant**; semipolar **surfactant** **polysiloxane** polyurethane hair cosmetic; fatty acid **surfactant** composite hair cosmetic; carboxyvinyl polymer **polysiloxane** polyurethane hair cosmetic
IT **Polysiloxanes**, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(alkyl Me, di-Me, KF 412, supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)
IT **Surfactants**
(amphoteric; hair cosmetics contg. **polysiloxane** -polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)
IT Vinyl compounds, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(carboxy-contg., polymers, alkyl-modified; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)
IT Betaines
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(coco alkyldimethyl, Dehyton AB 30, **surfactant**; hair

cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT **Polysiloxanes**, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(di-Me, Me Ph, SH 556, supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Hair preparations
Human
(hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Fatty acids, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(long-chain; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT **Polysiloxanes**, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyamine-polyester-polyurethane-, block, graft; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyurethanes, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyamine-polyoxyalkylene-, block; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyurethanes, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyamine-**polysiloxane**-polyester-, block, graft; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyesters, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyamine-**polysiloxane**-polyurethane-, block, graft; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyoxyalkylenes, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyamine-polyurethane-, block; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyamines
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyester-**polysiloxane**-polyurethane-, block, graft; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT **Polysiloxanes**, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(polyether-, supported on polyurethane; hair cosmetics contg.

polysiloxane-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT **Polysiloxanes**, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene-, supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyamines
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyoxyalkylene-polyurethane-, block; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyoxyalkylenes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(**polysiloxane**-, supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT **Surfactants**
(semipolar; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT Polyethers, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(**siloxane**-, supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT **Polysiloxanes**, biological studies
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT 31900-57-9
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(assumed monomers, supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT **541548-50-9P 541548-51-0P 541548-53-2P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(comprised of actual and assumed monomers; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT 57-10-3, Palmitic acid, biological studies 112-80-1, Oleic acid, biological studies 30399-84-9, Isostearic acid
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT 99550-86-4P, KF 851
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT 541548-54-3P 541548-55-4P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation); USES (Uses)
(**siloxanes** supported on; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT 541-02-6, SH 245 9016-00-6, SH 200C
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(supported on polyurethane; hair cosmetics contg. **polysiloxane**-polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

IT 683-10-3, Anon BL 820-66-6, Stearyldimethylbetaine 1643-20-5, Unisafe A-LM 26837-33-2, Obazoline 662N 42852-72-2, Softazoline LHL-SF 65931-48-8, Lonzaine CS 96827-24-6, Carbopol 1342 100754-07-2, Lebon 2000 130810-32-1, Lonzaine 12CS 138789-85-2, Pemulen TR 1 145687-02-1, Pemulen TR 2 200415-15-2, Lebon 2000SF 543729-50-6, Anon BDF 543729-81-3, Wondamine OX 100
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(**surfactant**; hair cosmetics contg. **polysiloxane** -polyurethanes and **surfactant**-fatty acid composites or carboxyvinyl polymers)

L33 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:122503 HCAPLUS
DOCUMENT NUMBER: 136:168927
TITLE: Production of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles
INVENTOR(S): Lange, Horst; Wagner, Roland; Witossek, Anita; Stachulla, Karl-Heinz; Teuber, Siegfried; Schnering, Albert; Moeller, Annette
PATENT ASSIGNEE(S): GE Bayer Silicones GmbH & Co. KG, Germany
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10036533	A1	20020214	DE 2000-10036533 <--	20000727
DE 10036533	B4	20050203		
PRIORITY APPLN. INFO.:			DE 2000-10036533 <--	20000727

AB Ionene-**polysiloxanes** having cyclic and(or) linear structures, useful as washfast softening agents for finishing textiles and as softening agents used with detergents, are manufd. by hydrosilylation of H(SiMe2O)nSiHMe2 with epoxides having terminal olefin groups at 50-150° in the presence of a catalyst and reaction of the product with a mixt. of a tertiary amine and a ditertiary amine in the presence of a HA acid at 40-120° and epoxide group-tertiary amine group-HA acid mol ratio 1:1:1.

IT **112-75-4DP**, Dimethyltetradecylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines **124-28-7DP**, Dimethyloctadecylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prodn. of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles)

RN 112-75-4 HCAPLUS
CN 1-Tetradecanamine, N,N-dimethyl- (9CI) (CA INDEX NAME)

$Me_2N-(CH_2)_{13}-Me$

RN 124-28-7 HCAPLUS
CN 1-Octadecanamine, N,N-dimethyl- (9CI) (CA INDEX NAME)

$Me_2N-(CH_2)_{17}-Me$

IC ICM C08G077-46
ICS C08G077-54; C08L083-12; C08L083-14; C09D183-12; C09D183-14; C11D003-30; A61K007-06
CC 40-9 (Textiles and Fibers)
Section cross-reference(s): **46**
ST ionene **polysiloxane** fabric softener; **polysiloxane** unsatd epoxide adduct tertiary amine reaction
IT Fabric finishing
(agents; prodn. of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles)
IT **Polysiloxanes**, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ionene-; prodn. of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles)
IT Ionene polymers
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**polysiloxane**-; prodn. of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles)
IT Fabric softeners
(prodn. of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles)
IT Amines, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(tertiary, reaction products, ionene-type, with epoxide-terminated **polydimethylsiloxane** and ditertiary amines; prodn. of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles)
IT 75-50-3DP, Trimethylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and tetramethylhexanediamine, salts with dodecanoic acid 112-18-5DP, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines 112-69-6DP, Dimethylhexadecylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines **112-75-4DP**, Dimethyltetradecylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines **124-28-7DP**, Dimethyloctadecylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines 598-56-1DP, ionene reaction products with

epoxide-terminated **polydimethylsiloxane** and ditertiary amines 926-63-6DP, Dimethylpropylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines 927-62-8DP, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines 1120-24-7DP, Dimethyldecylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines 4385-04-0DP, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines 7378-99-6DP, Dimethyloctylamine, ionene reaction products with epoxide-terminated **polydimethylsiloxane** and ditertiary amines
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prodn. of polyquaternary ammonium **polysiloxanes** and their use as washfast hydrophilic softeners for textiles)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:10058 HCAPLUS
DOCUMENT NUMBER: 136:71567
TITLE: Silicone based foam control compositions stable in detergents
INVENTOR(S): Elms, Russell Allen; Lin, Feifei; Severance, Martin Kent
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1167502	A1	20020102	EP 2001-115428	20010627
			<--	
EP 1167502	B1	20040428		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 265516	E	20040515	AT 2001-115428	20010627
			<--	
JP 2002088397	A2	20020327	JP 2001-201081	20010702
			<--	
PRIORITY APPLN. INFO.:			US 2000-609656 A	20000630
			<--	

AB A silicone based foam control compn. with very low rates of creaming, stable in detergents (resistant to phenomenon such as coalescence, flocculation and aggregation) and capable of controlling excess foaming, comprises a silicone based antifoaming agent and a silica dispersed in a detergent compatible carrier

contg. an alkylpolyglycoside formulation, a linear alc. ethoxylate, a silicone polyether and water.

IT **11099-06-2**, Ethyl polysilicate
RL: TEM (Technical or engineered material use); USES (Uses)
(Silicate 45; silicone based foam control compns. stable in detergents)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM C11D003-00
ICS B01D019-04; C11D001-825; C11D001-72; C11D003-37; C11D001-83
CC 46-4 (**Surface Active** Agents and Detergents)
ST **polysiloxane** antifoam compn detergent
IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-; silicone based foam control compns. stable in detergents)
IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(silicone based foam control compns. stable in detergents)
IT Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**siloxane**-; silicone based foam control compns. stable in detergents)
IT **11099-06-2**, Ethyl polysilicate
RL: TEM (Technical or engineered material use); USES (Uses)
(Silicate 45; silicone based foam control compns. stable in detergents)
IT 9002-93-1, Triton X 405 9003-11-6D, vinyl-terminated, **siloxane**- 9016-00-6D, **Polydimethylsiloxane**, sru, trimethylsilyl- or hydroxy-terminated 24938-91-8, Iconol TDA 10 31900-57-9D, **Polydimethylsiloxane**, trimethylsilyl- or hydroxy-terminated 70536-25-3, Sipernat D17 156118-35-3D, trimethylsilyl-terminated, crosslinked, polyoxyalkylene- 157478-91-6D, trimethylsilyl-terminated 163252-62-8D, trimethylsilyl-terminated 185402-72-6, Sipernat D13 383859-58-3, Glucopon 625FE
RL: TEM (Technical or engineered material use); USES (Uses)
(silicone based foam control compns. stable in detergents)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:10022 HCAPLUS

DOCUMENT NUMBER: 136:71566
TITLE: Silicone foam control compositions
INVENTOR(S): Elms, Russell Allen; Servinski, Margaret Ann
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1167456	A1	20020102	EP 2001-305455	200106 22
			<--	
EP 1167456	B1	20051109		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6512015	B1	20030128	US 2000-607479	200006 30
			<--	
JP 2002113304	A2	20020416	JP 2001-193200	200106 26
			<--	
PRIORITY APPLN. INFO.:			US 2000-607479 A	200006 30
			<--	

AB A silicone foam control compn., advantageous in controlling foam in foam producing systems, providing improvement in the control of foaming behavior, and stable and easily dispersible, comprises a silicone antifoam agent, mineral oil, a **polydiorganosiloxane** contg. at least one polyoxyalkylene group, and a finely divided filler.

IT **11099-06-2**, Ethyl polysilicate
RL: TEM (Technical or engineered material use); USES (Uses)
(silicone foam control compns.)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM C08L083-06
ICS C11D001-82; C11D001-825; B01D019-04; C08L083-04
CC 46-4 (**Surface Active** Agents and Detergents)
ST silicone antifoaming compn **polydiorganosiloxane** polyoxyalkylene
IT **Polysiloxanes**, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-; silicone foam control compns.)
IT Glycols, uses
Polysiloxanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(silicone foam control compns.)
IT Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**siloxane**-; silicone foam control compns.)
IT 1343-98-2, Sipernat D 10 9003-11-6D, vinyl-terminated, **siloxane**- 9016-00-6D, **Polydimethylsiloxane**, sru, trimethylsilyl- or hydroxy-terminated **11099-06-2**, Ethyl polysilicate 31900-57-9D, **Polydimethylsiloxane**, trimethylsilyl- or hydroxy-terminated 156118-35-3D, trimethylsilyl-terminated, crosslinked, polyoxyalkylene- 156549-36-9D, trimethylsilyl-terminated 185402-72-6, Sipernat D13 186321-84-6D, trimethylsilyl-terminated
RL: TEM (Technical or engineered material use); USES (Uses)
(silicone foam control compns.)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:412339 HCAPLUS
DOCUMENT NUMBER: 133:60194
TITLE: Aqueous polyurethane coating composition for containers with good scratch shielding properties
INVENTOR(S): Tanaka, Shigehiro; Goto, Sakiko; Takase, Masanori
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000169792	A2	20000620	JP 1999-202941	19990716

PRIORITY APPLN. INFO.: JP 1998-273196 A 19980928

AB The compn., for scratched glass and plastic container surface treatment, comprises a polyurethane, prepd. by the reaction of a low polar polyol, a high polar polyol, a polyisocyanate and an aminosilane coupling agent; a high b.p. solvent, and a lubricant. Thus, a compn. was made by the reaction of HS 2G160R, dimethylolpropionic acid, castor oil, butylethylpropanediol,

polyethylene glycol, and Desmodur W in MEK in the presence of tin octanoate at 70-75°, adding triethylamine then H2O, adding solvents and A 1100 and heating to 50° in the presence of a **surfactant.**

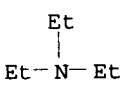
IT **276683-38-6P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aq. polyurethane coating compn. for containers with good scratch shielding properties)

RN 276683-38-6 HCAPLUS

CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with 2-butyl-2-ethyl-1,3-propanediol, α-hydro-ω-hydroxypoly(oxy-1,2-ethanediyl), Pespol HP 1000, Takenate 600 and 3-(triethoxysilyl)-1-propanamine, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N



CM 2

CRN 276683-37-5
CMF (C9 H23 N O3 Si . C9 H20 O2 . C5 H10 O4 . (C2 H4 O)n H2 O . Unspecified . Unspecified)x
CCI PMS

CM 3

CRN 186673-41-6
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

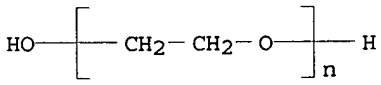
CM 4

CRN 75138-76-0
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

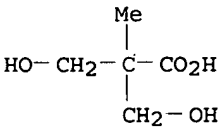
CM 5

CRN 25322-68-3
CMF (C2 H4 O)n H2 O
CCI PMS



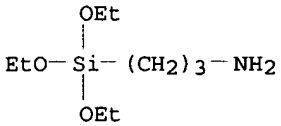
CM 6

CRN 4767-03-7
CMF C5 H10 O4



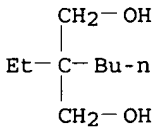
CM 7

CRN 919-30-2
CMF C9 H23 N O3 Si



CM 8

CRN 115-84-4
CMF C9 H20 O2



IC ICM C09D175-04
ICS B05D005-00; B05D007-24; C03C017-32; C09D005-00; C09D183-04; B65D023-08
CC 42-10 (Coatings, Inks, and Related Products)
ST **siloxane** polyurethane aq coating scratch shielding; polyester polyurethane **siloxane** coating glass plastic
IT Polyurethanes, uses
Polyurethanes, uses
Polyurethanes, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyester-**polysiloxane**-; aq. polyurethane coating compn. for containers with good scratch shielding properties)
IT **Polysiloxanes**, uses
Polysiloxanes, uses
Polysiloxanes, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyester-polyurethane-; aq. polyurethane coating compn. for

containers with good scratch shielding properties)
IT Polyesters, uses
Polyesters, uses
Polyesters, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyurethane-**polysiloxane**-; aq. polyurethane coating compn. for containers with good scratch shielding properties)
IT 115-84-4DP, polymer with castor oil, silane compd. and isocyanate, block, triethylamine salt 919-30-2DP, A 1100, polymer with castor oil, isocyanate compd. and diol, block, triethylamine salt 4767-03-7DP, Dimethylolpropionic acid, polymer with castor oil, silane compd. and isocyanate, block, triethylamine salt 25322-68-3DP, Polyethylene glycol, polymer with castor oil, silane compd. and isocyanate, block, triethylamine salt 79103-62-1DP, Desmodur W, polymer with castor oil, silane compd. and diol, block, triethylamine salt 232923-94-3DP, HS 2G160R, polymer with castor oil, silane compd. and isocyanate, block, triethylamine salt **276683-38-6P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aq. polyurethane coating compn. for containers with good scratch shielding properties)

L33 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:780853 HCAPLUS
DOCUMENT NUMBER: 132:94978
TITLE: Compositional Effects and Hydrothermal Reorganization of Mesoporous Silicates Synthesized in Surfactant Solutions
AUTHOR(S): Lee, Yoon Seob; Surjadi, Dede; Rathman, James F.
CORPORATE SOURCE: Chemical Engineering Department, The Ohio State University, Columbus, OH, 43210, USA
SOURCE: Langmuir (**2000**), 16(1), 195-202
CODEN: LANGD5; ISSN: 0743-7463
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Surfactant aggregates play a key role in aq. condensation polymn. reactions of silicate species to form mesoporous siliceous solids. The effects of surfactant (cetyltrimethylammonium chloride, CTAC) concn. and silicate/surfactant ratio on the synthesis of mesoporous silicates were studied. The subsequent hydrothermal reorganization of the surfactant-silicate mesophases during drying was also investigated. At low CTAC concn. (<10 wt. %) and low Si/CTAC molar ratio (<2.6), the CTAC micellar aggregates and bound silicate counterions have sufficient mobility to form hexagonal arrangements through the intermicellar silicate condensation. At higher CTAC concn. and higher Si/CTAC ratio, the hexagonal arrangement is considerably hindered due to the increased contour length of the micelles and the reduced intermicellar distance, resulting in crosslinking of micelles that disrupts formation of hexagonal pore structures. During drying, hydrothermal reorganizations of lamellar silicate mesophases into hexagonal structures and of cubic mesophases into lamellar structures were obsd. These transitions provide insight into the role of bilayer assemblies as precursors for the formation of cubic and hexagonal geometries.
IT **11099-06-2**, TEOS homopolymer
RL: PRP (Properties)
(compositional effects and hydrothermal reorganization of mesoporous silicates synthesized in surfactant solns.)
RN 11099-06-2 HCAPLUS

CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

CC 46-4 (**Surface Active** Agents and Detergents)
Section cross-reference(s): 35
IT **Polysiloxanes**, uses
Polysiloxanes, uses
RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)
(silicate-; compositional effects and hydrothermal reorganization of mesoporous silicates synthesized in surfactant solns.)
IT **11099-06-2**, TEOS homopolymer
RL: PRP (Properties)
(compositional effects and hydrothermal reorganization of mesoporous silicates synthesized in surfactant solns.)
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:56373 HCAPLUS
DOCUMENT NUMBER: 130:111864
TITLE: Silicone compositions and uses thereof
INVENTOR(S): Datz-Siegel, Teresa Lynn; Fey, Kenneth Christopher; L'Hostis, Jacqueline; Renauld, Franck A.
PATENT ASSIGNEE(S): Dow Corning Corporation, USA; Dow Corning SA
SOURCE: U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 635,347, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 8
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5861453	A	19990119	US 1997-789143	19970128
			<--	
EP 802231	A2	19971022	EP 1997-106123	19970415
			<--	

EP 802231	A3	19980325			
R: DE, FR, GB, IT, SE, FI					
JP 10052602	A2	19980224	JP 1997-101872		199704 18
			<--		
US 5914362	A	19990622	US 1997-960653		199710 30
			<--		
PRIORITY APPLN. INFO.:			US 1996-635347	B2	199604 19
			<--		
			US 1996-635043	A2	199604 19
			<--		
			US 1996-635119	A2	199604 19
			<--		
			US 1996-635346	A2	199604 19
			<--		
			US 1997-789143	A	199701 28
			<--		

AB Silicone compns. resistant to phase sepn. and useful as foam control compns. are prepd. by reacting mineral oil, a **polyorganosiloxane**, and a Si compd. in the presence of a catalyst. Thus, Duoprime Oil 90 55, **polydimethylsiloxane** diol 39, polyethyl silicate 5.9 parts, and KOH reacted to prep. an emulsion which sepd. into 2 liq. phases in <1 wk.

IT **11099-06-2DP**, Polyethyl silicate, reaction products with mineral oil and silicones
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(silicone compns. for defoaming agents)

RN 11099-06-2 HCAPLUS

CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM B01D019-04

INCL 524491000
CC 46-4 (**Surface Active** Agents and Detergents)
Section cross-reference(s): 35, 42, 43, 51
IT **Polysiloxanes**, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reaction products with mineral oils and silicon compds.; silicone compns. for defoaming agents)
IT 31692-79-2DP, **Polydimethylsiloxane** diol, reaction products with mineral oil and silicon compd.
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
([silicone compns. for defoaming agents)
IT **11099-06-2DP**, Polyethyl silicate, reaction products with mineral oil and silicones 31900-57-9DP, Dimethylsilanediol homopolymer, hydroxy-terminated, reaction products with mineral oil and silicon compd.
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(silicone compns. for defoaming agents)
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:806741 HCAPLUS
DOCUMENT NUMBER: 130:40128
TITLE: Surface pretreatment for photocatalytic hydrophilic film formation, and detergents and undercoating compositions used in the same, sets thereof, and pretreated products
INVENTOR(S): Kanno, Mitsuyoshi; Hayakawa, Makoto; Shibato, Masahiro; Yamamoto, Masahiro; Machida, Mitsuyoshi
PATENT ASSIGNEE(S): Toto Ltd., Japan
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855573	A1	19981210	WO 1998-JP2487	19980604
			<--	
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
JP 10337526	A2	19981222	JP 1998-112787	19980408
			<--	

JP 3250607 B2 20020128
CA 2290442 AA 19981210 CA 1998-2290442
199806
04
<--
AU 9875505 A1 19981221 AU 1998-75505
199806
04
<--
JP 11050006 A2 19990223 JP 1998-156232
199806
04
<--
EP 987317 A1 20000322 EP 1998-923133
199806
04
<--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
BR 9810241 A 20000905 BR 1998-10241
199806
04
<--
TW 517082 B 20030111 TW 1998-87108882
199806
04
<--
MX 9910818 A 20000430 MX 1999-10818
199911
23
<--
PRIORITY APPLN. INFO.: JP 1997-161864 A
199706
04
<--
JP 1997-161865 A
199706
04
<--
JP 1998-112787 A
199804
08
<--
JP 1997-105120 A
199704
08
<--
JP 1997-106677 A
199704
09
<--
JP 1997-106678 A
199704
09
<--
WO 1998-JP2487 W
199806
04
<--

AB The process useful for automobile bodies, glass window, coated surfaces, etc., comprises either cleaning the base surface with a given detergent, applying thereto a photocatalytic hydrophilic

coating fluid, and curing the coating to form a photocatalytic hydrophilic film, or cleaning the base surface with a given detergent, applying thereto a given undercoating compn., applying a photocatalytic hydrophilic coating fluid to the undercoat layer, and curing the coating to form a photocatalytic hydrophilic film. The detergent comprises at least one member selected among surfactants, abrasives, acids, and bases. The undercoat compn. for forming an undercoat layer comprises a solvent and one of a particulate inorg. oxide, a silicone, and a silicone precursor.

IT **11099-06-2**, Ethyl silicate
RL: TEM (Technical or engineered material use); USES (Uses)
(surface pretreatment for photocatalytic hydrophilic film formation, and detergents and undercoating compns. used in the same, sets thereof, and pretreated products)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM C11D003-14
ICS C09D183-04; C09D005-00; C09K003-18
CC 46-6 (**Surface Active** Agents and Detergents)
IT **Polysiloxanes**, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(surface pretreatment for photocatalytic hydrophilic film formation, and detergents and undercoating compns. used in the same, sets thereof, and pretreated products)
IT **11099-06-2**, Ethyl silicate
RL: TEM (Technical or engineered material use); USES (Uses)
(surface pretreatment for photocatalytic hydrophilic film formation, and detergents and undercoating compns. used in the same, sets thereof, and pretreated products)
REFERENCE COUNT: 94 THERE ARE 94 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:431713 HCAPLUS
DOCUMENT NUMBER: 127:163457
TITLE: Silicon-modified carbohydrate **surfactants**.III. Cationic and anionic compounds
AUTHOR(S): Wagner, R.; Richter, L.; Weiland, B.; Weissmueller, J.; Reiners, J.; Kraemer, W.
CORPORATE SOURCE: Max-Planck-Institute for Colloids and Surfaces, Berlin, 12489, Germany

SOURCE: Applied Organometallic Chemistry (**1997**), 11(6), 523-538
CODEN: AOCHEX; ISSN: 0268-2605
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ionic **siloxanyl**-modified carbohydrate **surfactants** were synthesized by alkylation/esterification of precursors contg. tertiary amino functions. Depending on the reaction strategy, the **siloxanyl** moiety is part of the alkylating agent or the substrate. Polyhydroxylated tertiary amines can be quaternized by **siloxanyl**-modified chloroacetic acid esters or **epoxysiloxanes** in the presence of glacial acetic acid. The esterification of tertiary amines bearing carbohydrate and **siloxanyl** subunits by cyclic acid anhydrides yields, after neutralization, carboxylate salts. The reaction of hydroxyl groups and sulfamic acid leads to sulfates. The new substances were characterized by 13C NMR spectroscopy, gas chromatog., elemental anal. and their soly. profile. These cationic and anionic **surfactants** have potential as fabric softeners, wetting agents, paint additives, and adjuvants in cosmetic and agrochem. formulations.

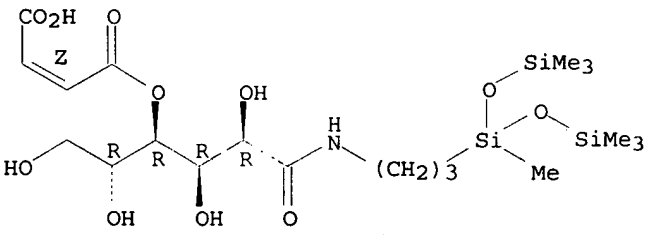
IT **193466-16-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

RN 193466-16-9 HCAPLUS
CN D-Gluconamide, N-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl]-, 4-[hydrogen (2Z)-2-butenedioate], compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

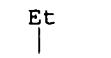
CRN 193465-93-9
CMF C20 H41 N O11 Si3

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 121-44-8
CMF C6 H15 N



CC 46-3 (Surface Active Agents and Detergents)
Section cross-reference(s): 33

ST **siloxanyl** modified carbohydrate **surfactant**
prepn; hydroxylated tertiary amine quaternization **siloxanyl** ester; dialkylaminoalkylamide prepn **siloxanyl** modification cationic **surfactant**

IT **Surfactants**
(anionic; prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT **Siloxanes** (nonpolymeric)
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(carbohydrate-modified; prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT **Surfactants**
(cationic; prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT Alkylation
Esterification
Quaternization
(prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT Glycosides
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT 164113-50-2P 164113-52-4P 164267-95-2P 164267-96-3P
164267-97-4P 164267-98-5P 164267-99-6P 164300-80-5P
193466-05-6P 193466-08-9P 193466-11-4P 193564-69-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT 64-19-7, Acetic acid, reactions 79-11-8, Chloroacetic acid, reactions 90-80-2, D-Gluconic acid δ-lactone 100-36-7, N,N-Diethylethylenediamine 102-83-0, N,N-Dibutyltrimethylenediamine 104-78-9, N,N-Diethyltrimethylenediamine 105-83-9, N,N-Bis(3-aminopropyl)methylamine 108-00-9, N,N-Dimethylethylenediamine 108-30-5, Succinic anhydride, reactions 108-31-6, 2,5-Furandione, reactions 109-55-7, N,N-Dimethyltrimethylenediamine 1310-73-2, Sodium hydroxide, reactions 3529-09-7, N,N-Dibutylethylenediamine 5329-14-6, Sulfamic acid 6284-40-8, N-Methyl-D-glucamine 7422-52-8 93377-95-8 138511-52-1 164063-66-5 164063-67-6 182688-53-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT 19257-59-1P 51812-79-4P 55728-06-8P 55728-07-9P 164113-45-5P

164113-46-6P 164113-47-7P 164113-48-8P 193465-93-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

IT 193465-95-1P 193465-97-3P 193465-98-4P 193466-00-1P
193466-16-9P 193466-18-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and soly. and quaternization potential of **siloxane**-modified carbohydrate cationic and anionic **surfactants**)

L33 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:721368 HCAPLUS
DOCUMENT NUMBER: 125:331693
TITLE: Aqueous polymer dispersions for chemical-, water-, and weather-resistant coatings
INVENTOR(S): Uno, Minoru; Hashimoto, Tomio; Tada, Hiroshi
PATENT ASSIGNEE(S): Toyo Ink Mfg Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08245733	A2	19960924	JP 1995-50826	19950310
PRIORITY APPLN. INFO.:			JP 1995-50826	19950310

AB The dispersions are obtained by soln. polymn. of (A) radically polymerizable ethylenically unsatd. carboxylic acids, (B) di-Me **siloxanes** having radically polymerizable groups, and (C) ≤10 parts (per 100 parts A + B) radically polymerizable **surfactants** in the presence of polymn. initiators and solvents, phase conversion of the resulting solns. to H2O, and removal of the solvents. Thus, Bu acrylate 26, Me methacrylate 70, acrylic acid 4, monofunctional methacryloxy-terminated di-Me **siloxane** 20, and Eleminol JS 2 (reactive emulsifier) 3 parts were polymd. in Me2CHOH in the presence of Bz2O2, neutralized with Et3N, blended with H2O, and freed of Me2CHOH by heating to give a 40% solid polymer dispersion (acid value 31.1, aq. particle size 50 nm). A coating formed from the dispersion showed good resistance to H2O and aq. NaOH and adhesion to slate and mortar plates with good gloss retention after weathering.

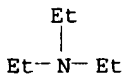
IT **183736-03-0P 183736-05-2P 183736-07-4P**
183736-09-6P 183736-11-0P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manuf. of acrylic-**siloxane** aq. dispersions for chem.-, water-, and weather-resistant coatings)

RN 183736-03-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, dimethylsilanediol, Eleminol JS 2 and 2-propenoic

acid, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N



CM 2

CRN 183736-02-9
CMF (C7 H12 O2 . C5 H8 O2 . C3 H4 O2 . C2 H8 O2 Si . Unspecified)x
CCI PMS

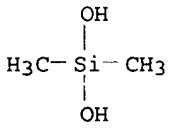
CM 3

CRN 79585-53-8
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

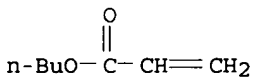
CM 4

CRN 1066-42-8
CMF C2 H8 O2 Si



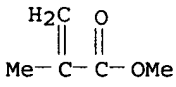
CM 5

CRN 141-32-2
CMF C7 H12 O2



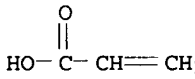
CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

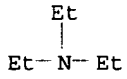
CRN 79-10-7
CMF C3 H4 O2



RN 183736-05-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, dimethylsilanediol, Latemul S 180A and 2-propenoic acid, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N



CM 2

CRN 183736-04-1
CMF (C7 H12 O2 . C5 H8 O2 . C3 H4 O2 . C2 H8 O2 Si . Unspecified)x
CCI PMS

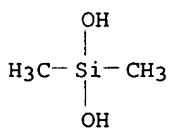
CM 3

CRN 113255-53-1
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

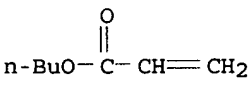
CM 4

CRN 1066-42-8
CMF C2 H8 O2 Si



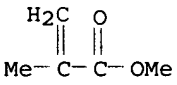
CM 5

CRN 141-32-2
CMF C7 H12 O2



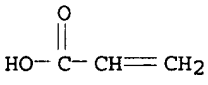
CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

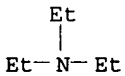
CRN 79-10-7
CMF C3 H4 O2



RN 183736-07-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, dimethylsilanediol, 2-ethylhexyl 2-propenoate, 2-propenoic acid and α-sulfo-ω-[nonyl(2-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) ammonium salt, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

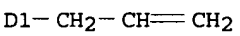


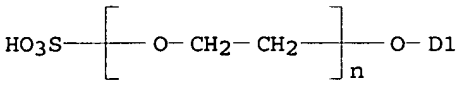
CM 2

CRN 183736-06-3
CMF (C11 H20 O2 . C7 H12 O2 . C5 H8 O2 . C3 H4 O2 . C2 H8 O2 Si . (C2 H4 O)n C18 H28 O4 S . H3 N)x
CCI PMS

CM 3

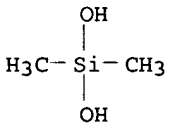
CRN 112908-98-2
CMF (C2 H4 O)n C18 H28 O4 S . H3 N
CCI IDS, PMS





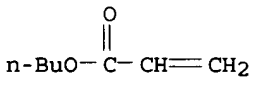
CM 4

CRN 1066-42-8
CMF C2 H8 O2 Si



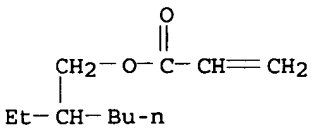
CM 5

CRN 141-32-2
CMF C7 H12 O2



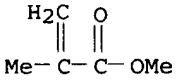
CM 6

CRN 103-11-7
CMF C11 H20 O2



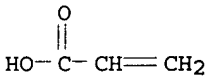
CM 7

CRN 80-62-6
CMF C5 H8 O2



CM 8

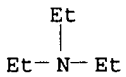
CRN 79-10-7
CMF C3 H4 O2



RN 183736-09-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, dimethylsilanediol, Latemul S 180A and methyl 2-methyl-2-propenoate, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N



CM 2

CRN 183736-08-5
CMF (C7 H12 O2 . C5 H8 O2 . C4 H6 O2 . C2 H8 O2 Si . Unspecified)x
CCI PMS

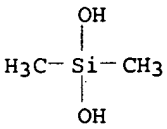
CM 3

CRN 113255-53-1
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

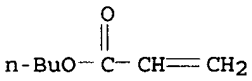
CM 4

CRN 1066-42-8
CMF C2 H8 O2 Si



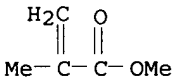
CM 5

CRN 141-32-2
CMF C7 H12 O2



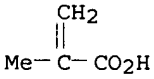
CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

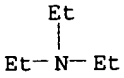
CRN 79-41-4
CMF C4 H6 O2



RN 183736-11-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with dimethylsilanediol, Eleminol JS 2, 2-ethylhexyl 2-propenoate and methyl 2-methyl-2-propenoate, graft, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N



CM 2

CRN 183736-10-9
CMF (C11 H20 O2 . C5 H8 O2 . C4 H6 O2 . C2 H8 O2 Si . Unspecified)x
CCI PMS

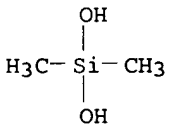
CM 3

CRN 79585-53-8
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

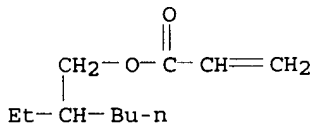
CM 4

CRN 1066-42-8
CMF C2 H8 O2 Si



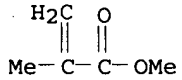
CM 5

CRN 103-11-7
CMF C11 H20 O2



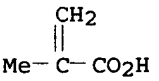
CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

CRN 79-41-4
CMF C4 H6 O2



IC ICM C08F290-06
ICS C08F002-24; C08F002-44; C08F006-10; C08L033-06; C09D133-06; C09D157-00
ICA C08G077-442
CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 58
ST water resistance coating acrylic **siloxane** emulsion; alkali resistance acrylic **siloxane** emulsion coating; weather resistance acrylic **siloxane** emulsion coating
IT Mortar
Slate
(manuf. of acrylic-**siloxane** aq. dispersions for chem.-, water-, and weather-resistant coatings)
IT Glass, oxide
RL: MSC (Miscellaneous)
(manuf. of acrylic-**siloxane** aq. dispersions for chem.-, water-, and weather-resistant coatings)
IT Coating materials
(acid- and water- and weather-resistant, manuf. of acrylic-**siloxane** aq. dispersions for chem.-, water-, and weather-resistant coatings)
IT **Siloxanes** and Silicones, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, manuf. of acrylic-**siloxane** aq. dispersions for chem.-, water-, and weather-resistant coatings)
IT **183736-03-0P 183736-05-2P 183736-07-4P 183736-09-6P 183736-11-0P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(manuf. of acrylic-**siloxane** aq. dispersions for chem.-, water-, and weather-resistant coatings)

L33 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:506464 HCAPLUS
DOCUMENT NUMBER: 125:225141
TITLE: Silicone foam control compositions
INVENTOR(S): McGee, James B.; Petroff, Lenin J.; Brecht, Doris J.; Ollinger, William J.; Ollinger, Legal Representative By John M.
PATENT ASSIGNEE(S): Dow Corning Corporation, USA
SOURCE: U.S., 16 pp., Cont.-in-part of U.S. 5,380464.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5543082	A	19960806	US 1993-119762	199309

					13
				<--	
US 5380464	A	19950110	US 1990-479022		
					199002
					12
				<--	
PRIORITY APPLN. INFO.:			US 1988-192042	B2	
					198805
					09
				<--	
			US 1989-393620	B2	
					198908
					14
				<--	
			US 1990-479022	A2	
					199002
					12
				<--	

AB A foam control compn. comprises (I) a silicone defoamer reaction product and (II) a silicone glycol copolymer particularly effective in defoaming highly acidic or highly basic aq. systems. The compns. of the present invention can further comprise (III) a finely divided filler, and/or (IV) a trimethylsilyl or hydroxyl endblocked **polyorganosiloxane.** A blend of 45 parts a fluid which contains the reaction product of OH-terminal **polydimethylsiloxane**, trimethylsilyl-terminal **polydimethylsiloxane**, silica, and Et silicate, and 55 parts silicone glycol of Me3SiO(MeSiOCH2CH2CH2QmPnOZ)j(Me2SiO)kSiMe3 (Q = ethylene oxide; P = propylene oxide; Z = H; j = 9.5; k = 103; m, n = 18) as tested on pulping liquors, showed knockdown value (10 s) 16 and foam ht. 19 cm after 20 min; vs. 24.5 and 32, resp., for silicone glycol only.

IT **11099-06-2DP**, Ethyl silicate, reaction product with silica and **polyorganosiloxane**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(in long acting silicone foam control compns. for use in acid and base aq. systems)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM B01D019-04
INCL 252321000
CC 46-4 (**Surface Active** Agents and Detergents)

ST hydroxy terminated **polydimethylsiloxane** antifoam; silicone glycol antifoam compn; trimethylsilyl terminated **polydimethylsiloxane** antifoam; ethyl silicate **polydimethylsiloxane** adduct antifoam; silica filler adduct antifoam compn; pulping liquor antifoam compn

IT Antifoaming agents
(**siloxane**-silica compns. contg. silicone glycol for use in acid and base aq. systems)

IT **Siloxanes** and Silicones, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyoxyalkylene-, **siloxane**-silica compns. contg. silicone glycol for use in acid and base aq. systems)

IT Polyoxyalkylenes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**siloxane**-, **siloxane**-silica compns. contg. silicone glycol for use in acid and base aq. systems)

IT 7631-86-9DP, Silica, reaction product with **polyorganosiloxane** and Et silicate 7631-86-9P, Silica, uses 9003-11-6DP, Ethylene oxide-propylene oxide copolymer, **siloxane** derivs. **11099-06-2DP**, Ethyl silicate, reaction product with silica and **polyorganosiloxane** 25322-68-3DP, Polyethylene glycol, **siloxane** derivs. 27613-77-0DP, Polyethylene glycol monoacetate, **siloxane** derivs. 31692-79-2P 31900-57-9DP, Dimethyl silanediol homopolymer, reaction product with silica, Et silicate, and **polyorganosiloxane** 42557-10-8P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(in long acting silicone foam control compns. for use in acid and base aq. systems)

L33 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:632097 HCAPLUS
DOCUMENT NUMBER: 123:35824
TITLE: **Siloxanyl** group-containing anionic polyhydroxy compounds for use as **surfactants**
INVENTOR(S): Wagner, Roland; Wersig, Reingard; Schmaucks, Gerd; Weiland, Bernd; Richter, Lothar; Hennig, Annette; Jaenicke, Andrea; Reiners, Juergen; Kraemer, Wolgang; et al.
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 21 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4318539	A1	19941208	DE 1993-4318539	19930604
WO 9429323	A1	19941222	WO 1994-EP1655 <--	

199405
24
<--
W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, LK, NO,
NZ, PL, RO, RU, SK, UA, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
AU 9469295 A1 19950103 AU 1994-69295
199405
24
<--
PRIORITY APPLN. INFO.: DE 1993-4318539 A
199306
04
<--
WO 1994-EP1655 W
199405
24
<--

AB The title compds. are biodegradable and useful as emulsifiers for insecticides, herbicides, etc. A **surfactant** was prepd. by reacting 1 mol gluconolactone with 1 mol H2N(CH2)3SiMe(OSiMe3)2 and esterifying the resulting gluconamide with 1 mol maleic anhydride to give a monocarboxy compd.

IT **164202-95-3P**
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(prepn. of surface-active)

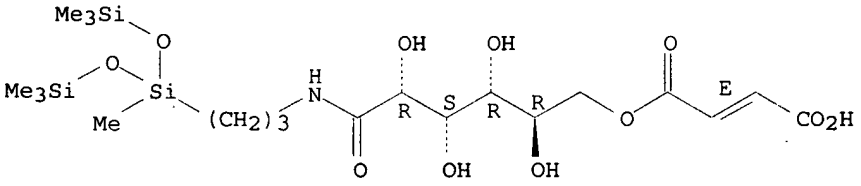
RN 164202-95-3 HCAPLUS

CN D-Gluconamide, N-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]propyl]-, 6-(hydrogen 2-butenedioate), (E)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

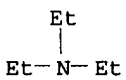
CRN 164063-68-7
CMF C20 H41 N O11 Si3

Absolute stereochemistry.
Double bond geometry as shown.



CM 2

CRN 121-44-8
CMF C6 H15 N



IC ICM C07H015-26
ICS C07H015-04; C11D003-22; A01N055-00; C07F007-18; C07F007-10
CC 46-3 (Surface Active Agents and Detergents)
Section cross-reference(s): 29, 33
ST **siloxane** polyhydroxy carboxy deriv **surfactant**;
maleate polyhydroxy **siloxane** deriv **surfactant**;
gluconic maleate **siloxane** deriv **surfactant**;
emulsifier **siloxane** polyhydroxy carboxy deriv
IT **Surfactants**
(prepn. of polyhydroxy and carboxy group-contg. **siloxanes** for use as)
IT Carboxylic acids, preparation
Siloxanes and Silicones, preparation
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(prepn. of polyhydroxy and carboxy group-contg. **siloxanes** for use as **surfactants**)
IT 93377-95-8 164202-93-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with (aminopropyl)**heptamethyltrisiloxane**)
IT 90-80-2, Gluconolactone
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with (aminopropyl)**heptamethyltrisiloxane** and esterification with maleic anhydride)
IT 108-31-6, Maleic anhydride, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification with **siloxanyl** group-contg. polyhydroxy compds.)
IT 164063-68-7P 164063-69-8P 164063-70-1P 164063-71-2P
164202-94-2P **164202-95-3P** 164202-96-4P
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(prepn. of surface-active)

L33 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:301653 HCAPLUS
DOCUMENT NUMBER: 120:301653
TITLE: Salts of amines and carboxy-terminated esters of polyoxyalkylene-**siloxanes**
INVENTOR(S): O'Lenick, Anthony J.
PATENT ASSIGNEE(S): Siltech Inc., USA
SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 804,688, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5248783	A	19930928	US 1992-966430 <--	19921026
PRIORITY APPLN. INFO.:			US 1991-788345 B2 <--	19911106
			US 1991-804688 B2	

199112
11

<--

AB The title salts are high-foaming surface-active agents which are substantive to the surfaces of fibers and other substrates and are useful in personal care, textile, and industrial formulations for imparting softness and lubricity. The salts are prepd. by esterifying OH groups of a polyoxyalkylene-**siloxane** with a dicarboxylic anhydride and neutralizing the free carboxy groups with an amine. A salt was prepd. by esterifying Siltech H 1600 (OH-contg. polyoxypropylene-**siloxane**) with maleic anhydride and neutralizing free carboxy groups with C12H25NMe2.

IT **124-28-7DP**, salts with carboxy-contg. polyoxyalkylene-**siloxanes**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surfactants, foaming, prepn. and uses of)

RN 124-28-7 HCAPLUS

CN 1-Octadecanamine, N,N-dimethyl- (9CI) (CA INDEX NAME)

$Me_2N-(CH_2)_{17}-Me$

IC ICM C07F007-10

INCL 548110000

CC 46-3 (**Surface Active** Agents and Detergents)
Section cross-reference(s): 35, 37, 40, 62

ST polyoxyalkylene **siloxane** carboxylate amine salt; lubricant polyoxyalkylene **siloxane** amine salt; polyoxypropylene **siloxane** carboxylate amine salt; polyoxyethylene **siloxane** carboxylate amine salt; softener polyoxyalkylene **siloxane** amine salt

IT Lubricants
Softening agents
Surfactants
(amine salts of carboxy-contg. polyoxyalkylene-**siloxanes**, prepn. and uses of)

IT Anhydrides
RL: IMF (Industrial manufacture); PREP (Preparation)
(monoesters with carboxy-contg. polyoxyalkylene-**siloxanes**, amine salts, surfactants, foaming, prepn. and uses of)

IT Cosmetics
(foams, amine salts of carboxy-contg. polyoxyalkylene-**siloxanes** for)

IT **Siloxanes** and Silicones, compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(polyoxyalkylene-, block, monoesters with dicarboxylic anhydrides, amine salts, surfactants, foaming, prepn. and uses of)

IT **Siloxanes** and Silicones, compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(polyoxyalkylene-, carboxy-contg., amine salts, surfactants, amine salts, prepn. and uses of)

IT Amines, compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(salts, with carboxy-contg. polyoxyalkylene-**siloxanes**, surfactants, foaming, prepn. and uses of)

IT Polyoxyalkylenes, compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(**siloxane**-, block, monoesters with dicarboxylic anhydrides, amine salts, surfactants, foaming, prepn. and uses

of)
IT Polyoxyalkylenes, compounds
RL: IMF (Industrial manufacture); PREP (Preparation)
(**siloxane**-, carboxy-contg., amine salts, surfactants, amine salts, prepn. and uses of)
IT 85-44-9DP, 1,3-Isobenzofurandione, monoesters with polyoxyalkylene-**siloxanes**, amine salts 95-19-2DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 110-15-6DP, Butanedioic acid, monoesters with polyoxyalkylene-**siloxanes**, amine salts 110-16-7DP, 2-Butenedioic acid (Z)-, monoesters with polyoxyalkylene-**siloxanes**, amine salts 117-08-8DP, Tetrachlorophthalic anhydride, monoesters with polyoxyalkylene-**siloxanes**, amine salts **124-28-7DP**, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 136-99-2DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 1120-24-7DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 2016-57-1DP, 1-Decanamine, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 2561-85-5DP, Dodecylsuccinic anhydride, monoesters with polyoxyalkylene-**siloxanes**, amine salts 4100-80-5DP, monoesters with polyoxyalkylene-**siloxanes**, amine salts 7378-99-6DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 7396-58-9DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 9003-11-6DP, Ethylene oxide-propylene oxide copolymer, **siloxane** derivs., monoesters with dicarboxylic acids, amine salts 25322-68-3DP, Polyethylene glycol, **siloxane** derivs., monoesters with dicarboxylic acids, amine salts 25322-69-4DP, Polypropylene glycol, **siloxane** derivs., monoesters with dicarboxylic acids, amine salts 36060-61-4DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 37286-67-2DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 37615-53-5DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 44979-90-0DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 45275-74-9DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 46201-48-3DP, Hexylsuccinic anhydride, monoesters with polyoxyalkylene-**siloxanes**, amine salts 47458-32-2DP, Octadecylsuccinic anhydride, monoesters with polyoxyalkylene-**siloxanes**, amine salts 53520-66-4DP, n-Eicosylsuccinic anhydride, monoesters with polyoxyalkylene-**siloxanes**, amine salts 68966-42-7DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 148133-75-9DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 151820-17-6DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 155214-70-3DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes** 155214-78-1DP, salts with carboxy-contg. polyoxyalkylene-**siloxanes**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(surfactants, foaming, prepn. and uses of)

L33 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:247840 HCAPLUS
DOCUMENT NUMBER: 120:247840
TITLE: Preparation of **siloxane**-containing defoamer composition
INVENTOR(S): Miura, Takahiro
PATENT ASSIGNEE(S): Dow Corning Corp., USA
SOURCE: U.S., 8 pp. Cont.-in-part of U.S. Ser. No. 69,089, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5283004	A	19940201	US 1989-310158 <--	19890210
JP 63147507	A2	19880620	JP 1987-39041 <--	19870224
JP 04033481	B4	19920603		
PRIORITY APPLN. INFO.:			JP 1986-167840 A <--	19860718
			JP 1987-39041 A <--	19870224
			US 1987-69089 B2 <--	19870702

AB A defoamer compn. is prepd. by heating a mixt. of **siloxanes** [esp. Me3Si-terminated di-Me **siloxane**, OH-terminated di-Me **siloxane**, and poly(Et silicate)], finely divided filler (e.g., silica), reaction catalyst (e.g., KOH) and ≥1 compd. selected from alkylene glycols, polyhydric alcs., carboxylic acids and their metal salts or esters, nonionic surfactants, polyoxyethylene group-contg. anionic surfactants, polyoxyalkylene-**siloxanes**, nonionic fluorinated surfactants, and OH-contg. polymers. The compn. shows prolonged defoaming activity and is esp. useful in aq. systems contg. anionic surfactants.

IT **11099-06-2D**, Poly(ethyl silicate, derivs.
RL: USES (Uses)
(antifoaming agents contg. **siloxanes** and)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM B01D019-04

INCL 252358000
CC 46-4 (**Surface Active** Agents and Detergents)
ST silica **siloxane** deriv defoamer; glycol **siloxane** defoamer; polyol **siloxane** defoamer; carboxylic acid **siloxane** defoamer; nonionic surfactant **siloxane** defoamer; polyoxyalkylene **siloxane** defoamer; fluoro surfactant **siloxane** defoamer; anionic surfactant defoamer **siloxane**
IT **Siloxanes** and Silicones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(antifoaming agents contg., prepn. of)
IT Antifoaming agents
(**siloxane** deriv.-contg., prepn. of)
IT Surfactants
(**siloxane** derivs., antifoaming agents, prepn. of)
IT **Siloxanes** and Silicones, compounds
RL: TEM (Technical or engineered material use); USES (Uses)
(compds., antifoaming agents contg., prepn. of)
IT **Siloxanes** and Silicones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-, antifoaming agents contg., prepn. of)
IT Polyoxyalkylenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(**siloxane**-, antifoaming agents contg., prepn. of)
IT 7631-86-9, Silica, uses **11099-06-2D**, Poly(ethyl silicate, derivs.
RL: USES (Uses)
(antifoaming agents contg. **siloxanes** and)
IT 50-70-4D, Sorbitol, reaction products with **siloxanes** 143-18-0D, Potassium oleate, reaction products with **siloxanes** 1338-41-6D, Sorbitan monostearate, reaction products with **siloxanes** 9003-11-6D, Methyloxirane-oxirane copolymer, reaction products with **siloxanes** 9004-62-0D, Hydroxyethyl cellulose, reaction products with **siloxanes** 9004-99-3D, Polyethylene glycol monostearate, reaction products with **siloxanes** 9005-00-9D, Polyethylene glycol monostearyl ether, reaction products with **siloxanes** 9005-67-8D, Polyoxyethylene sorbitan monostearate, reaction products with **siloxanes** 9014-90-8D, Polyethylene glycol mono(nonylphenyl) ether sulfate sodium salt, reaction products with **siloxanes** 11138-66-2D, Xanthan gum, reaction products with **siloxanes** 25322-68-3D, Polyethylene glycol, perfluoroalkyl ethers, reaction products with **siloxanes** 37353-59-6D, Hydroxymethyl cellulose, reaction products with **siloxanes** 60828-78-6D, Polyethylene glycol trimethylnonyl ether, reaction products with **siloxanes**
RL: TEM (Technical or engineered material use); USES (Uses)
(antifoaming agents contg., prepn. of)

L33 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:56145 HCAPLUS
DOCUMENT NUMBER: 120:56145
TITLE: Preparation and uses of silanes bearing water-solubilizing and hydrophobic moieties
INVENTOR(S): Chang, Wen Hsuan; Grunewalder, John F.; Harley, Mark A.; McEntire, Edward E.
PATENT ASSIGNEE(S): PPG Industries, Inc., USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9308198	A1	19930429	WO 1992-US7875	199209 17
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W: CA, FI, JP, KR, NO RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
US 5354881	A	19941011	US 1991-776040	199110 15
			<--	
EP 609250	A1	19940810	EP 1992-920335	199209 17
			<--	
R: AT, BE, DE, DK, ES, FR, GB, IE, IT, NL, SE				
JP 06510558	T2	19941124	JP 1992-507677	199209 17
			<--	
JP 2534829	B2	19960918		
CA 2121264	C	19960827	CA 1992-2121264	199209 17
			<--	
NO 9401339	A	19940414	NO 1994-1339	199404 14
			<--	
FI 9401729	A	19940609	FI 1994-1729	199404 14
			<--	
PRIORITY APPLN. INFO.:			US 1991-776040 A	199110 15
			<--	
			WO 1992-US7875 W	199209 17
			<--	

AB The title silanes, carrying ≥1 anionic or nonionic water solubilizing moiety and ≥1 hydrophobic moiety, suitable for prepg. stable aq. solns. or dispersions contg. >5% silanes, are prepd. by reacting aminosilanes with org. anhydrides to form an intermediate and neutralizing with a base to give an an ionic compd., or by reacting an isocyanate-terminated silane with a OH-contg. nonionic **surfactant** to give nonionic compds. The stable aq. solns. are useful as wood preservatives.

IT **152253-94-6P 152272-46-3P 152272-47-4P**
152272-49-6P 152323-88-1P 152375-74-1P
152375-77-4P
RL: PREP (Preparation)
(prepn. and use of stable, in aq. solns. or dispersions)

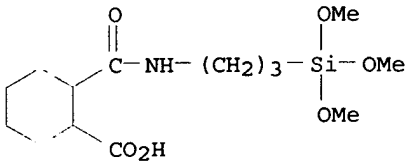
RN 152253-94-6 HCAPLUS

CN Cyclohexanecarboxylic acid, methyl-2-[[[3-(trimethoxysilyl)propyl]amino]carbonyl]-, compd. with

N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

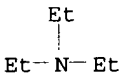
CRN 152253-93-5
CMF C15 H29 N O6 Si
CCI IDS



D1—Me

CM 2

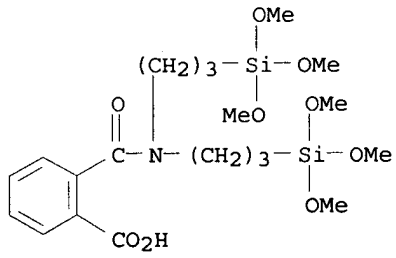
CRN 121-44-8
CMF C6 H15 N



RN 152272-46-3 HCAPLUS
CN Benzoic acid, 2-[[bis[3-(trimethoxysilyl)propyl]amino]carbonyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

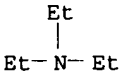
CM 1

CRN 152272-45-2
CMF C20 H35 N O9 Si2



CM 2

CRN 121-44-8
CMF C6 H15 N

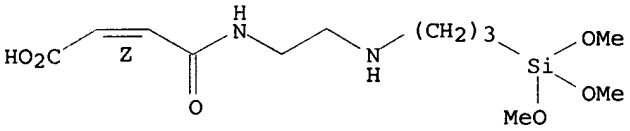


RN 152272-47-4 HCAPLUS
CN 2-Oxa-7,10-diaza-3-silatetradec-12-en-14-oic acid, 3,3-dimethoxy-11-oxo-, (Z)-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

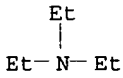
CRN 99503-88-5
CMF C12 H24 N2 O6 Si

Double bond geometry as shown.



CM 2

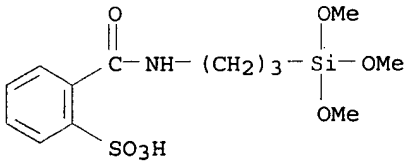
CRN 121-44-8
CMF C6 H15 N



RN 152272-49-6 HCAPLUS
CN Benzenesulfonic acid, 2-[[[3-(trimethoxysilyl)propyl]amino]carbonyl]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 152272-48-5
CMF C13 H21 N O7 S Si



CM 2

CRN 121-44-8
CMF C6 H15 N

RN 152323-88-1 HCAPLUS
CN Butanedioic acid, dodecenyl-, monoamide with N-[3-(trimethoxysilyl)propyl]-1,2-ethanediamine, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

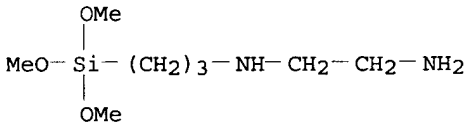
CRN 121-44-8
CMF C6 H15 N

CM 2

CRN 152323-87-0
CMF C24 H48 N2 O6 Si
CCI IDS

CM 3

CRN 1760-24-3
CMF C8 H22 N2 O3 Si

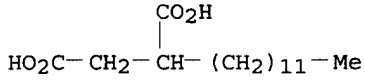


CM 4

CRN 29658-97-7
CMF C16 H28 O4
CCI IDS

CM 5

CRN 455-95-8
CMF C16 H30 O4

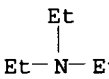


RN 152375-74-1 HCAPLUS
CN Butanoic acid, dodecenyl-4-oxo-4-[[3-(trimethoxysilyl)propyl]amino]-

, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

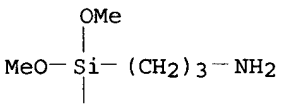


CM 2

CRN 152375-73-0
CMF C22 H43 N O6 Si
CCI IDS

CM 3

CRN 13822-56-5
CMF C6 H17 N O3 Si

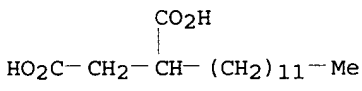


CM 4

CRN 29658-97-7
CMF C16 H28 O4
CCI IDS

CM 5

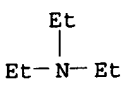
CRN 455-95-8
CMF C16 H30 O4



RN 152375-77-4 HCAPLUS
CN Butanoic acid, isooctadecenyl-4-oxo-4-[[3-(trimethoxysilyl)propyl]amino]-, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

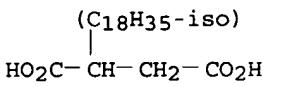


CM 2

CRN 153221-48-8
CMF C28 H55 N O6 Si
CCI IDS

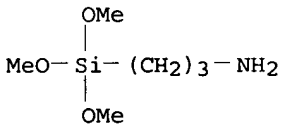
CM 3

CRN 35164-31-9
CMF C22 H40 O4
CCI IDS



CM 4

CRN 13822-56-5
CMF C6 H17 N O3 Si



IC ICM C07F007-18
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 5, 43
ST silane org hydrophilic stable manuf; wood preservative stable silane soln; anhydride org silane reaction product; **surfactant** org silane reaction product; nonionic silane reaction product manuf
IT Wood preservatives
(aq. stable silane and **siloxane** compns. as, prepn. of)
IT **Siloxanes** and Silicones, uses
RL: USES (Uses)
(wood preservatives contg. aq., stable)
IT 151864-28-7P **152253-94-6P 152272-46-3P**
152272-47-4P 152272-49-6P 152323-86-9P
152323-88-1P 152375-74-1P 152375-77-4P
RL: PREP (Preparation)
(prepn. and use of stable, in aq. solns. or dispersions)

L33 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:604576 HCAPLUS
DOCUMENT NUMBER: 119:204576
TITLE: **Siloxanes** bearing silicon-bonded sulfatohexyl groups
INVENTOR(S): Busch, Stefan; Lersch, Peter; Schaefer, Dietmar; Wewers, Dietmar

PATENT ASSIGNEE(S): Th. Goldschmidt AG, Germany
SOURCE: Ger., 6 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4141046	C1	19930218	DE 1991-4141046	199112 13
EP 546408	A1	19930616	EP 1992-120403 <--	199211 28
EP 546408	B1	19960110	<--	
R: BE, DE, ES, FR, GB, IT, NL				
ES 2081549	T3	19960301	ES 1992-120403 <--	199211 28
US 5281687	A	19940125	US 1992-987853 <--	199212 09
PRIORITY APPLN. INFO.:			DE 1991-4141046 A <--	199112 13

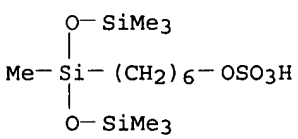
AB The title **siloxanes** are prepd. with good **surfactant** properties and hydrolysis resistance. Stirring 300 g 3-(6-hydroxyhexyl)**heptamethyltrisiloxane** (I) (prepd. by hydrosilylation of 5-hexen-1-ol with **heptamethyltrisiloxane**) and 93.9 g sulfamic acid in DMF at 75° for 30 min gave I NH4 sulfate and a small amt. of oligomers. Aq. solns. of 0.025, 0.10, 0.25, and 1.0% this product had surface tension (20°) 21.1, 20.2, 20.1, and 19.8 mN/m, resp.

IT **150697-78-2**
RL: USES (Uses)
(**surfactants**, manuf. of hydrolysis-resistant)

RN 150697-78-2 HCAPLUS
CN 1-Hexanol, 6-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]-, hydrogen sulfate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

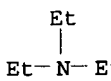
CM 1

CRN 150697-74-8
CMF C13 H34 O6 S Si3



CM 2

CRN 121-44-8
CMF C6 H15 N



IC ICM C08G077-28
ICS C08G077-392; B01F017-54; C07F007-08
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 29, 46
ST **siloxane** sulfatohexyl manuf **surfactant**;
trisiloxane sulfatohexyl manuf **surfactant**;
sulfamic acid reaction **hydroxyhexyltrisiloxane**; hexenol hydrosilylation **heptamethyltrisiloxane**
IT **Siloxanes** and Silicones, uses
RL: USES (Uses)
(Me sulfatohexyl, amine salts, **surfactants**, manuf. of hydrolysis-resistant)
IT **Surfactants**
(sulfatohexyl **siloxanes**, manuf. of hydrolysis-resistant)
IT 1873-88-7, 1,1,1,3,5,5,5-**Heptamethyltrisiloxane**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation by, of hexenol)
IT 821-41-0, 5-Hexen-1-ol
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation of, by **heptamethyltrisiloxane**)
IT 5329-14-6, Sulfamic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfation by, of (hydroxyhexyl)**heptamethylsiloxane**)
IT 150697-73-7 150697-75-9 150697-76-0 150697-77-1
150697-78-2 150697-79-3
RL: USES (Uses)
(**surfactants**, manuf. of hydrolysis-resistant)

L33 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:636326 HCAPLUS
DOCUMENT NUMBER: 117:236326
TITLE: Emulsion-gelled silicone antifoams
INVENTOR(S): Hill, Randal Myron; Starch, Michael Stephen; Gaul, Margaret Mary Sommar
PATENT ASSIGNEE(S): Dow Corning Corp., USA
SOURCE: Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 499364	A1	19920819	EP 1992-300494	199201 21

<--

EP 499364 B1 19961030
R: DE, FR, GB, IT
US 5262088 A 19931116 US 1991-645540
199101
24
<--
CA 2059099 C 20010515 CA 1992-2059099
199201
09
<--
JP 05038403 A2 19930219 JP 1992-9934
199201
23
<--
JP 3213035 B2 20010925
PRIORITY APPLN. INFO.: US 1991-645540 A
199101
24
<--

AB An antifoaming agent, useful in aq. detergent compns., is prepd. by (1) uniformly dispersing a curable liq. **organosiloxane** compn. (A) in a liq. continuous phase (B), using sufficient amt. of ≥1 surfactant to form a stable emulsion of A in B; and (2) curing dispersed liq. A in the emulsion. Thus, OH-terminated **dimethylsiloxane** fluid (13,500 cSt) 29, Me3SiO-terminated **dimethylsiloxane** (1000 cSt) 60, Et polysilicate 2.9, K silanolate 4.8, SiO2 2.9, and OH-terminated **dimethylsiloxane** (40 cSt) 4.8, EtOH 0.3, H2O 0.1, and L-540 were reacted and the catalyst neutralized by dry ice. Curing the neat product in presence of 1% stannous octoate on a dynamic rheometer showed in 14 min. dynamic elastic modulus 2550 Pa and tan δ 0.70.

IT **11099-06-2**, Ethyl polysilicate
RL: USES (Uses)
(filler, in prepn. of cured silicone defoamers)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM B01D019-04
ICS C08J003-26

CC 46-4 (**Surface Active** Agents and Detergents)
Section cross-reference(s): 39

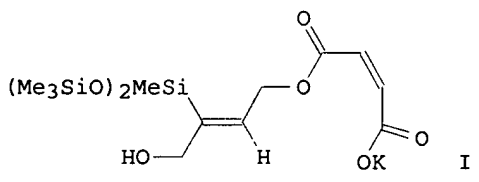
IT Crosslinking catalysts
(stannous octoate, for curing functionalized **siloxanes**, to antifoamers)

IT **Siloxanes** and Silicones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-Me, reaction of, in prepn. of crosslinked antifoamers)
IT **Siloxanes** and Silicones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-Me, hydroxy-terminated, reaction of, in prepn. of crosslinked antifoamers)
IT **Siloxanes** and Silicones, uses
RL: IMF (Industrial manufacture); PREP (Preparation)
(di-Me, polyoxyethylene-polyoxypropylene-, dispersant, in prepn. of cured silicone defoamers)
IT 301-10-0, Stannous octoate
RL: CAT (Catalyst use); USES (Uses)
(catalyst, for curing functionalized **siloxanes**, to antifoamers)
IT 1343-98-2, Silicic acid 7631-86-9, Silica, uses **11099-06-2**, Ethyl polysilicate
RL: USES (Uses)
(filler, in prepn. of cured silicone defoamers)

L33 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:247520 HCAPLUS
DOCUMENT NUMBER: 114:247520
TITLE: Preparation of (siloxy)silylalkenyl alkenedioate monoester salts as **surfactants** and intermediates
INVENTOR(S): Engelbrecht, Lothar; Sonnek, Georg; Hamann, Horst
PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Ger. Dem. Rep.
SOURCE: Ger. (East), 15 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 282692	A5	19900919	DD 1988-319672 <--	19880809
PRIORITY APPLN. INFO.:			DD 1988-319672 <--	19880809

OTHER SOURCE(S): CASREACT 114:247520; MARPAT 114:247520
GI



I

AB R1CH:CXCR2R3O2CZCO2M and R1CX:CHCR2R3O2CZCO2M [R1 = H, alkyl, CH2OH; R2 = H, alkyl; R3 = H, alkyl, C.tplbond.CCH2OH; X = organosilyl, **polysiloxanyl**; Z = CH2CH2, CH:CH, CH(OH)CH2, 1,2-phenylene; M = alkali metal, alk. earth metal, ammonium], useful as **surfactants** and synthetic intermediates, were prepd. by 1) treatment of R1C.tplbond.CCR2R3OH with equimolar amts. of HX in an org. aprotic solvent at 20-130° in the presence of a catalyst to give R1CH:CXCR2R3OH and R1CX:CHCR2R3OH, 2) acylation of the latter with acid anhydrides in the presence of an esterification catalyst, and 3) salification of the resulting monoesters. Thus, HOCH2C.tplbond.CCH2OH, **heptamethyltrisiloxane**, and H2PtCl6/Me2CHOH were refluxed 2 h in dioxane. Maleic anhydride was added, the mixt. was refluxed 0.5 h, Et3N was added, and reflux was continued 2 h. Aq. Na2CO3 was added at 40-50° to give title compd. I. I at 10 g/L reduced air-H2O surface tension from 71.3 mN/m to 24.0 nN/m.

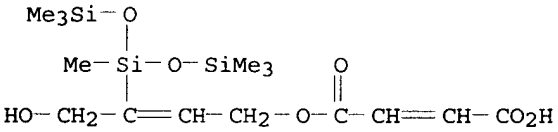
IT **133978-23-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as **surfactants** and synthetic intermediates)

RN 133978-23-1 HCAPLUS

CN 2-Butenedioic acid, mono[4-hydroxy-3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]-2-butenyl] ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

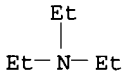
CM 1

CRN 133978-22-0
CMF C15 H30 O7 Si3



CM 2

CRN 121-44-8
CMF C6 H15 N



IC ICM C07F007-08

CC 29-6 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 46

ST silylalkenyl alkanedioate salt prepn **surfactant**; alkynol silylation esterification salification

IT Hydrosilylation
(of alkynols by **hydrosiloxanes**)

IT **Surfactants**
(silylalkenyl alkanedioate monoester salts)

IT 1873-88-7, 1,1,1,3,5,5,5-**Heptamethyltrisiloxane**
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrosilylation by, of butynediol)

IT 133960-57-3DP, **polysiloxanyl** 133960-59-5DP,

polysiloxanyl
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as **surfactant** and synthetic intermediate)
IT 133978-21-9P **133978-23-1P** 133978-24-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as **surfactants** and synthetic intermediates)

L33 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:145872 HCAPLUS
DOCUMENT NUMBER: 114:145872
TITLE: Aqueous **polysiloxane** softening compositions and process for the treatment of textiles
INVENTOR(S): Donkers, Annemieke Constantia Maria; Wright, Shirley Elizabeth
PATENT ASSIGNEE(S): Dow Corning Ltd., UK
SOURCE: Brit. UK Pat. Appl., 17 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2230787	A1	19901031	GB 1989-2941	19890209
			<--	
PRIORITY APPLN. INFO.:			GB 1989-2941	19890209
			<--	

OTHER SOURCE(S): MARPAT 114:145872
AB The title compns. comprise an org. cationic compd., a poly(diorgano **siloxane**), and 0.2-1 part quaternary ammonium silane (R3)3SiR4N+(R5)3X- [R3 = C≤5 alkyl, OH, alkoxy, C≤12 alkoxyalkoxy, trimethylsiloxy; R4 = divalent C2-10 aliph. hydrocarbylene linking Si and N and optionally contg. OH or ether linkages; R5 = hydrocarbyl (1 or 2 groups R5 having an C8-19 aliph. and 1 or 2 groups R5 having an C≤5 aliph.); X- = monovalent anion] and impart good softness to laundered textiles. Thus, 1 mol dimethyloxymethylchloropropylsilane was treated with 1.05 mol Me2NR (R = C12-14 alkyl) to give a quaternary ammonium silane (I). Cotton fabrics were washed 3 times in an automatic washing machine, immersed in a bath contg. 2 L water and 50 g compn. contg. bis(hydrogenated tallow alkyl)dimethylammonium chloride (II) 3, emulsion [contg. 1 part poly(**dimethylsiloxane**) and 8 parts cyclic poly(di-Me **siloxane**)] 0.7, and I 1.5 parts for 15 min, and dried to give fabrics with softness and handle superior to those obtained with II only.
IT **124-28-7D**, Dimethyloctadecylamine, reaction products with dimetoxymethylchloropropylsilane
RL: USES (Uses)
(fabric softeners, contg. cationic compds. and **siloxanes**)
RN 124-28-7 HCAPLUS
CN 1-Octadecanamine, N,N-dimethyl- (9CI) (CA INDEX NAME)

$Me_2N-(CH_2)_{17}-Me$

IC ICM C08L083-04
ICA D06M015-643
CC 46-5 (**Surface Active** Agents and Detergents)
Section cross-reference(s): 40
ST quaternary ammonium silane softness cotton; cationic compd softener cotton fabric; **siloxane** softener cotton fabric
IT Quaternary ammonium compounds, uses and miscellaneous
RL: USES (Uses)
(fabric softener, contg. quaternary ammonium silanes and **siloxanes**)
IT **Siloxanes** and Silicones, uses and miscellaneous
RL: USES (Uses)
(fabric softeners, contg. quaternary ammonium silanes and cationic compds.)
IT Softening agents
(for textiles, cationic compd.-poly(diorgano **siloxane**)-quaternary ammonium silane mixts. as)
IT Amines, compounds
RL: USES (Uses)
(C12-14-alkyldimethyl, reaction products, with dimethoxymethylchloropropylsilane, fabric softeners, contg. cationic compds. and **siloxanes**)
IT Quaternary ammonium compounds, uses and miscellaneous
RL: USES (Uses)
(bis(hydrogenated tallow alkyl)dimethyl, fabric softener, contg. quaternary ammonium silanes and **siloxanes**)
IT **Siloxanes** and Silicones, uses and miscellaneous
RL: USES (Uses)
(di-Me, fabric softeners, contg. quaternary ammonium silanes and cationic compds.)
IT **124-28-7D**, Dimethyloctadecylamine, reaction products with dimetoxymethylchloropropylsilane 7378-99-6D, Dimethyloctylamine, reaction products with dimetoxymethylchloropropylsilane 18171-19-2D, reaction products with alkyldimethlamines
RL: USES (Uses)
(fabric softeners, contg. cationic compds. and **siloxanes**)

L33 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:39175 HCAPLUS
DOCUMENT NUMBER: 110:39175
TITLE: Process for preparing **siloxanylalkenediyl** bis(carboxylates)
INVENTOR(S): Sonnek, Georg; Drahs, Elke
PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Ger. Dem. Rep.
SOURCE: Ger. (East), 5 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 255346	A1	19880330	DD 1986-298207	198612

22
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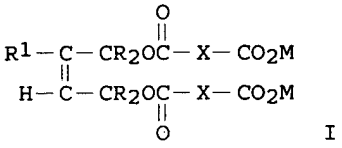
PRIORITY APPLN. INFO.: DD 1986-298207
198612
22
<--
OTHER SOURCE(S): MARPAT 110:39175
GI



I

AB Title compds. I [R = H, alkyl; R1 = (poly)**organosiloxanyl** or -silyl; X = HC:CH, (CH2)n; M = alkali metal, alk. earth metal, ammonium, n = 2-6], useful as materials for **surfactants** (no data), are prepd. by reaction of silyl- or **siloxanylalkenediols** or disilyl ethers with dicarboxylic acids or anhydrides. For example, esterification of 0.125 mol 2-(**heptamethyltrisiloxanyl**)-2-butene-1,4-diol with 0.25 mol maleic anhydride in the presence of 3.5 mL CS2 in PhMe at .apprx.110° gave 2-(**heptamethyltrisiloxanyl**)-2-butene-1,4-diyl dimaleate isolated as the bis(triethylammonium) salt.

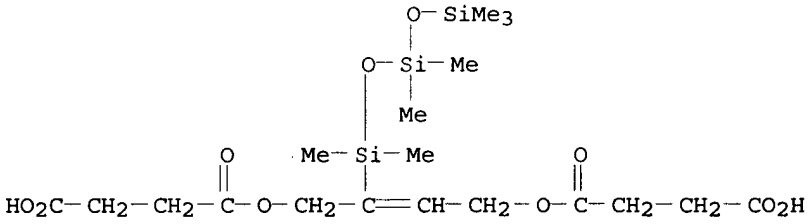
IT **118202-97-4P 118245-37-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 118202-97-4 HCAPLUS

CN Butanedioic acid, 2-(heptamethyltrisiloxanyl)-2-butene-1,4-diyl ester, compd. with N,N-diethylethanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 118202-96-3
CMF C19 H36 O10 Si3



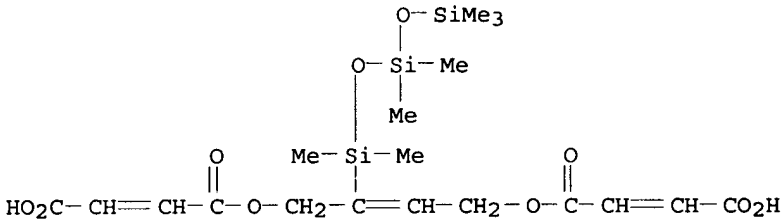
CM 2

CRN 121-44-8
CMF C6 H15 N

RN 118245-37-7 HCAPLUS
CN 2-Butenedioic acid (2Z)-, 2-(heptamethyltrisiloxanyl)-2-butene-1,4-diyl ester, compd. with N,N-diethylethanamine (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 118202-94-1
CMF C19 H32 O10 Si3



CM 2

CRN 121-44-8
CMF C6 H15 N

IC ICM C07F007-18
CC 29-6 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 46
ST **siloxanylalkenediyldicarboxylate** prepn **surfactant** material
IT **Surfactants**
(materials for, **siloxanylalkenediyl** bis(carboxylates) as)
IT 75-15-0, Carbon disulfide, uses and miscellaneous 104-15-4, p-Toluenesulfonic acid, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for esterification of **siloxanylalkenediols** with dicarboxylic acids)
IT 108-30-5, Succinic anhydride, reactions 108-31-6, 2,5-Furandione, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification by, of **siloxanylalkenediols**)
IT 118202-94-1P 118202-95-2P 118202-96-3P **118202-97-4P**
118245-37-7P 118245-38-8P 118245-39-9P 118245-40-2P
118245-41-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L33 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:411033 HCAPLUS
DOCUMENT NUMBER: 105:11033
TITLE: Preparing concrete and mortar mixtures
INVENTOR(S): Hoerling, Ludwig
PATENT ASSIGNEE(S): Hoerling, Ludwig, Fabrik Chemischer Baustoffe G.m.b.H., Fed. Rep. Ger.
SOURCE: Ger. Offen., 11 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3436676	A1	19860410	DE 1984-3436676	19841005

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PRIORITY APPLN. INFO.: DE 1984-3436676 19841005

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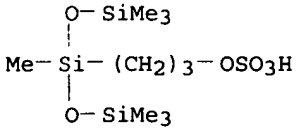
AB Organosilicon compds., preferably **surfactive**, with polar groups, are added, alone or combined with the usual concrete additives, to prep. concrete and mortar mixts. A latent hydraulic binder, e.g., fly ash, blast-furnace slag, or electrofilter ash may be used in addn. to cement and sand or gravel. The organosilicon compd. may be a **polysiloxane**-polyoxyalkylene block copolymer or a **siloxane** with sulfate ester, sulfonate, or carboxylic groups. Thus, a soln. of sulfite liquor 600, water 300, and nonionic wetting agent 30 parts was mixed with the **siloxane** tenside MeSi[(OSiMe3)2](CH2)3OSO3HNEt3 1 part and 0.2-0.3% of this soln. was added to a concrete mix, contg. portland cement 45 F 250, 0-7 mm sand 300, 15-30 mm gravel 300, and water 70 kg, and the mix was compressed to concrete stones. The concrete was easily compressed; the degree of concn. was increased .apprx.10%, and therefore the compressive strength was 15-20% higher and the flexural strength .apprx.10% higher. The green stage strength was increased. The sides and face surfaces of the unfinished piece were acceptable.

IT **57244-87-8**
RL: USES (Uses)
(in concrete mix, for increased compressibility and strength)

RN 57244-87-8 HCAPLUS
CN 1-Propanol, 3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]disiloxanyl]-, hydrogen sulfate, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 45244-68-6
CMF C10 H28 O6 S Si3



CM 2

CRN 121-44-8
CMF C6 H15 N

IC ICM C04B024-42
ICS C04B028-02; C04B018-08; C04B018-14
CC 58-2 (Cement, Concrete, and Related Building Materials)
ST **siloxane** concrete increased compressibility strength
IT **Siloxanes** and Silicones, uses and miscellaneous
RL: USES (Uses)
(in concrete mix, for increased compressibility and strength)
IT Concrete
(**siloxane** additives in, for increased compressibility and strength)
IT **Siloxanes** and Silicones, uses and miscellaneous
RL: USES (Uses)
(polyoxyalkylene-, in concrete mix, for increased compressibility and strength)
IT Polyoxyalkylenes
RL: USES (Uses)
(**siloxane**-, in concrete mix, for increased compressibility and strength)
IT **57244-87-8**
RL: USES (Uses)
(in concrete mix, for increased compressibility and strength)

L33 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:188749 HCAPLUS
DOCUMENT NUMBER: 104:188749
TITLE: A silicone defoamer composition
INVENTOR(S): Aizawa, Koichi; Sewa, Shingo; Nakahara, Hideki
PATENT ASSIGNEE(S): Dow Corning K. K., Japan
SOURCE: Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 163541	A2	19851204	EP 1985-303834	19850530

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EP 163541	A3	19880420		
EP 163541	B1	19920415		
R: BE, DE, FR, GB, IT				
JP 60251906	A2	19851212	JP 1984-108450	198405 30
			<--	
JP 03014481	B4	19910226		
US 4639489	A	19870127	US 1985-738922	198505 29
			<--	
CA 1252017	A1	19890404	CA 1985-482653	198505 29
			<--	
US 4749740	A	19880607	US 1986-930611	198611 14
			<--	
JP 63044905	A2	19880225	JP 1987-131257	198705 29
			<--	
JP 03014482	B4	19910226		
CA 1300781	A1	19920512	CA 1987-550905	198711 03
			<--	
EP 270273	A2	19880608	EP 1987-310040	198711 13
			<--	
EP 270273	A3	19890920		
R: BE, DE, FR, GB, IT				
PRIORITY APPLN. INFO.:			JP 1984-108450 A	198405 30
			<--	
			US 1985-738922 A2	198505 29
			<--	
			US 1986-930611 A	198611 14
			<--	

AB A silicone defoamer compn. was prepd. by reaction of a mixt. of **polyorganosiloxane** bearing OH or ether groups, a resinous **siloxane** or a Si compd., a finely divided filler, and a catalyst. Thus, 348 g of **polydimethylsiloxane** (I) having a Me3Si terminal group and viscosity of 1000 cSt was mixed uniformly with 25.8 g **siloxane** resin consisting of Me3SiO0.5 and SiO2 units at 25°, 180 g I having a terminal hydroxy group was added, followed by 3 g of a catalyst made from 90 g Me2CHOH and 10 g KOH, and the mixt. heated to 130-140°, 30 g SiO2 dispersed, and the mixt. heated 2 h at 230° and at 180°/400 mm Hg to give a defoamer compn. Various defoamer compns. were prepd., emulsified, and used effectively in a foaming compn.

IT **11099-06-2**
RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with poly(**dimethylsiloxane**) and silica, defoaming compn. from)
RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC ICM B01D019-04
CC 46-4 (**Surface Active** Agents and Detergents)
ST silicone defoamer compn; **organosiloxane** defoamer compn
IT **Siloxanes** and Silicones, uses and miscellaneous
RL: USES (Uses)
(defoaming agents)
IT **Siloxanes** and Silicones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(di-Me, reaction of, with Et polysilicate and silica, defoaming compn. from)
IT 7631-86-9, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with poly(**dimethylsiloxane**) and Et polysilicate, defoaming compn. from)
IT **11099-06-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with poly(**dimethylsiloxane**) and silica, defoaming compn. from)

L33 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1981:499695 HCAPLUS
DOCUMENT NUMBER: 95:99695
TITLE: Antifoaming composition
INVENTOR(S): Savinchuk, Lyudmila G.; Farvaeva, R. N.; Semenov, Viktor K.
PATENT ASSIGNEE(S): Magnitogorsk Mining-Metallurgical Institute, USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1981, (17), 26. CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 827114	A1	19810507	SU 1978-2685346	197811

09
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PRIORITY APPLN. INFO.: SU 1978-2685346 A
197811
09
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AB Antifoaming compns. are prepd. by adding 33-66 parts still residue from ethyl silicate [**11099-06-2**] prodn. to mixts. of 8-17 parts liq. **siloxane** and 17-50 parts (BuO)3PO [126-73-8].

IT **11099-06-2P**
RL: PREP (Preparation)
(distn. residue from manuf. of, antifoaming agents contg.)

RN 11099-06-2 HCAPLUS
CN Silicic acid, ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 1343-98-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

H_3C-CH_2-OH

IC B01D019-04
CC 46-4 (**Surface Active** Agents and Detergents)
ST silicate ethyl residue defoamer; **siloxane** silicate residue defoamer; phosphate silicate residue defoamer; butyl phosphate silicate defoamer; antifoaming phosphate silicate **siloxane**
IT **Siloxanes** and Silicones, uses and miscellaneous
RL: USES (Uses)
(antifoaming agents, contg. tri-Bu phosphate and distn. residue from Et silicate manuf.)
IT Antifoaming agents
(**siloxane**-tributyl phosphate mixts. contg. residue from Et silicate distn.)
IT 126-73-8, uses and miscellaneous
RL: USES (Uses)
(antifoaming agent, contg. **siloxanes** and distn. residue from Et silicate manuf.)
IT **11099-06-2P**
RL: PREP (Preparation)
(distn. residue from manuf. of, antifoaming agents contg.)

L33 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1972:449158 HCAPLUS
DOCUMENT NUMBER: 77:49158
TITLE: Quaternary ammonium salts of chloromethylated silicon compounds
INVENTOR(S): Pepe, Enrico J.; Kanner, Bernard
PATENT ASSIGNEE(S): Union Carbide Corp.
SOURCE: U.S., 5 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3661963	A	19720509	US 1969-803973 <--	19690303
US 3963726	A	19760615	US 1971-197112 <--	19711109

PRIORITY APPLN. INFO.: US 1964-423414 A2 19641231 <--
US 1969-803973 A3 19690303 <--

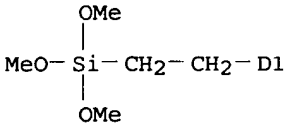
AB The title salts of silanes or **siloxanes** are prepd. by quaternization of the corresponding chloromethylated compds., and are useful as antistatic agents, wetting agents, lubricants, hydraulic fluids, coatings, elastomers, and cationic **surfactants.** Thus ClCH2C6H4CH2CH2SiMeF2 11.7 and Et3N 5.6 g were mixed in a test tube (immediate reaction), and the tube sealed with a glass stopper and heated at 90.deg. for 1 hr. The mixt. was heated to 150.deg. for 2 min and stripped in vacuo to give [β-[(triethylammoniomethyl)phenyl]ethyl]methyldifluorosilane chloride [35397-12-7]. Other examples (7) are given using tertiary quaternary amines such as triallylamine and pyridine. Also prepd. were linear **siloxane** copolymers such as I, useful as a **surfactant.**

IT **37216-58-3P**
RL: PREP (Preparation)
(prepn. of)
RN 37216-58-3 HCAPLUS
CN Methanamine, N,N-dimethyl-, polymer with [2-[(chloromethyl)phenyl]ethyl]trimethylsilane and trimethoxyoctadecylsilane (9CI) (CA INDEX NAME)

CM 1

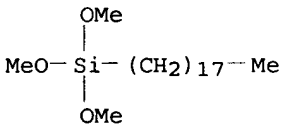
CRN 50975-76-3
CMF C12 H19 Cl O3 Si
CCI IDS

D1—CH_2—Cl



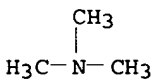
CM 2

CRN 3069-42-9
CMF C21 H46 O3 Si



CM 3

CRN 75-50-3
CMF C3 H9 N



IC C07F
INCL 260448200N
CC 35-3 (Synthetic High Polymers)
Section cross-reference(s): 51, 46
ST quaternary ammonium silane; **siloxane** polymer quaternary ammonium; antistatic quaternary silane; wetting agent silane; **polysiloxane** lubricant; coating **siloxane** quaternary; **surfactant polysiloxane** quaternary
IT **Siloxanes** and Silicones, preparation
RL: PREP (Preparation)
(ammonium compd.-substituted, manuf. of)
IT 35397-12-7P **37216-58-3P** 37871-03-7P 37871-04-8P 37871-05-9P 37999-22-7P
RL: PREP (Preparation)
(prepn. of)

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